SAKN

JOURNAL OF THE

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ASSOCIATION



Volume 83, Number 1 January 1985

New study reveals no interaction between



Ativan® (lorazepam) and Darvon® (propoxyphene HCl) ℂⅣ

In a study evaluating the influence of propoxyphene coadministration on the pharmacokinetics of the oxidatively metabolized benzodiazepines Xanax® (alprazolam) ℂ and Valium® (diazepam) ℂ, and a benzodiazepine metabolized by conjugation, Ativan® (lorazepam), the following results were reported:

with Xanax, propoxyphene caused a large and highly significant prolongation of half-life and impairment of total metabolic clearance.[1]

in the case of Valium, propoxyphene produced a small but not statistically significant impairment of clearance.[1]

propoxyphene had no apparent effect on the distribution, half-life or clearance of Ativan.[1]

In this randomized crossover study, eight healthy male and female volunteers received single oral doses of alprazolam (1 mg), six received single IV doses of diazepam (10 mg), and five received single IV doses of lorazepam (2 mg), once in a drug-free control state and again during coadministration of propoxyphene (65 mg q6h). Consistent with previous findings, this study evidences that Ativan does not interact with drugs that undergo oxidative metabolism.[2-5] In contrast to most other benzodiazepines, Ativan does not compete for the cytochrome P-450 enzyme system.

The clinical implications of the pharmacokinetic interaction, or non-interaction, of propoxyphene with benzodiazepines are not established by this study. Even without a pharmacokinetic interaction, propoxyphene and benzodiazepines share central depressant properties and therefore should be coadministered with suitable caution. A concurrent pharmacokinetic interaction indicates a need for even further caution. Coadministration of propoxyphene and alprazolam, for example, would produce not only the expected pharmacodynamic interaction, but also whatever additional central depressant effect would be produced by the elevated steady-state plasma concentrations of alprazolam due to its impaired clearance.

Caution should also be observed when propoxyphene is prescribed for patients who use alcohol to excess.

References

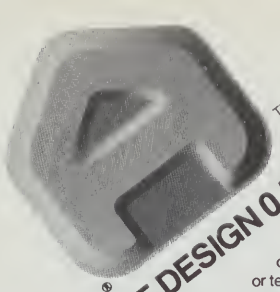
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Wyeth Laboratories
Philadelphia, PA 19101

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Ativan® for (lorazepam) ℂⅣ Anxiety

See important information on following page.



Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® (IV)
for (lorazepam)
Anxiety

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

HOW SUPPLIED: 0.5, 1.0 and 2.0mg tablets.

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Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

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SCIENTIFIC

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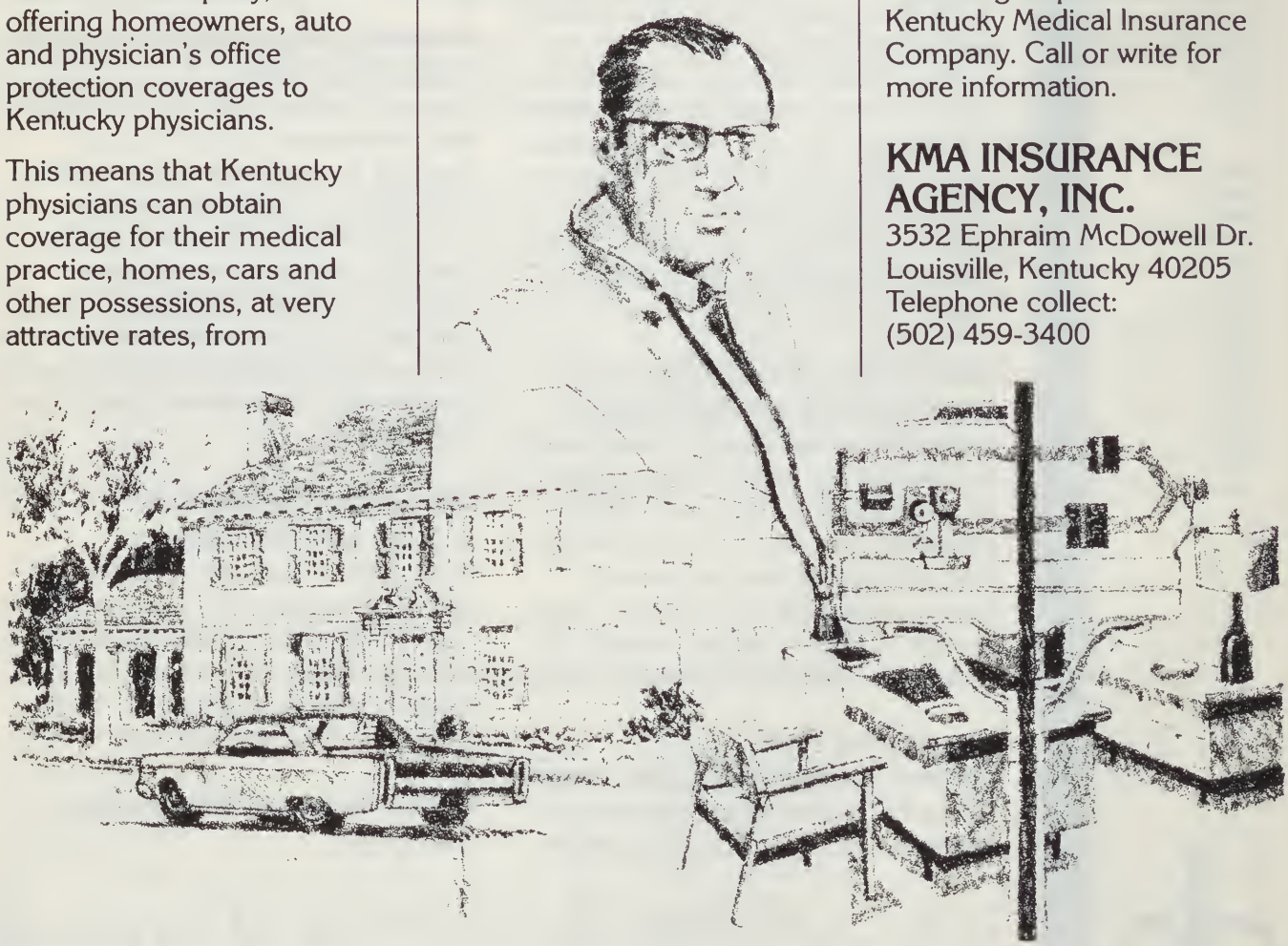
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PRESIDENT'S PAGE



Happy New Year

A new office appointment book, calendar, and itinerary are already made out with multitudes of meetings and ideas. 1984 saw a significant change for all of us in the practice of medicine with fee freezes, decreased utilization of hospital facilities and the ever increasing number of abbreviations to consume our time and efforts. DRG's became the law of the land for reimbursement of all hospitals for medical care. And HMO's, PPO's, IPA's and joint ventures have become more prominent in our delivery of health care to the American people.

But as we look to this New Year of 1985 there are several milestones to be expected:

Kentucky Physicians Care - 1985

This month as a result of the actions of the House of Delegates last September the physicians of Kentucky will show they are willing and able to care for those indigent of the state who are not in the Medicaid program and cannot afford health care. This is a bold new step for KMA and I believe will be of much value in our future legislative efforts as it will reveal in a statistical manner how much free care we provide. And I believe in 1985, the KHA, pharmaceutical industry and others will respond to the needs of these indigent.

As we look to the legislature of the state meeting in 1986 we need to expand the statistical base of Kentucky Physicians Care to try to estimate the amount of free care we give to all the people of the Commonwealth by not billing for Medicaid and in writing off much of what Medicare should pay as reasonable reimbursement. The physicians of this state do take care of the sick but in order to prove our efforts we must be willing to compile statistics. With this information there may be willingness on the part of the legislature to consider such free care as a tax credit.

KMA Affiliates - 1985

KMA leadership over the years has seen a need to provide services such as the KMA Insurance Agency, KMIC, KMCO, and the Credit Union. 1985 should be a banner year for these associates in their ever-expanding role of providing for the membership. These companies are well organized, managed, and operated to meet your needs. If you have not checked into the cost of insurance, computers, and cost of borrowing money with these KMA companies you will be surprised at how much can be saved.

Federal Legislation - 1985

The 98th Congress passed many bills related to medicine with the Deficit Reduction Act having the most impact on physician reimbursement. Many bills considered in the 98th Congress will arise to meet us in the 99th Congress beginning this month. By July 1, 1985, HCFA will have in place the mechanism to reimburse physicians on a DRG basis. The AMA, American College of Physicians, American College of Surgeons and numerous other organizations are working on a Relative Value scale which would be fair to the physician and also not violate the FTC agreement of what is adequate reimbursement for medical care. I predict this will be the major legislative effort of the year for physicians.

In addition Congress must consider the vetoed bills of President Reagan to fund the NIH and the various health professions education programs. Congress also considered HR-5400 in 1984 which had a hearing but no additional action. This bill will undoubtedly be reintroduced by Rep. Moore (R-La.) and Rep. Gephardt (D-Mo.) in 1985 as the "Alternative Medical Liability Act" and the central feature of the act would permit a physician or hospital to offer compensation to an injured patient for that patient's "net economic loss" and by so doing foreclose the patient from suits for compensation in the court system. The AMA has many reasons to oppose this bill.

Also in 1985 the Medicare Solvency and Health Care Financing Reform Act of 1984 (Kennedy-Gephardt Bill) will be reintroduced. This bill calls for major restructuring of the reimbursement methodologies for both hospital and physician services for inpatient care. This bill would mandate assignment for all physician services and would provide a series of "competition" proposals that are intended to encourage individuals to receive care through HMO's or other qualified plans. Senator Heinz (R-Pa.) also introduced a bill called the Medicare Incentives Reform Act (MIRA) as a potential response to the Kennedy-Gephardt proposal and will be introduced again in the 99th Congress. KMA national legislative committee will keep aware of all proposals and will inpart to your senators and representatives your views.

AMA - 1985

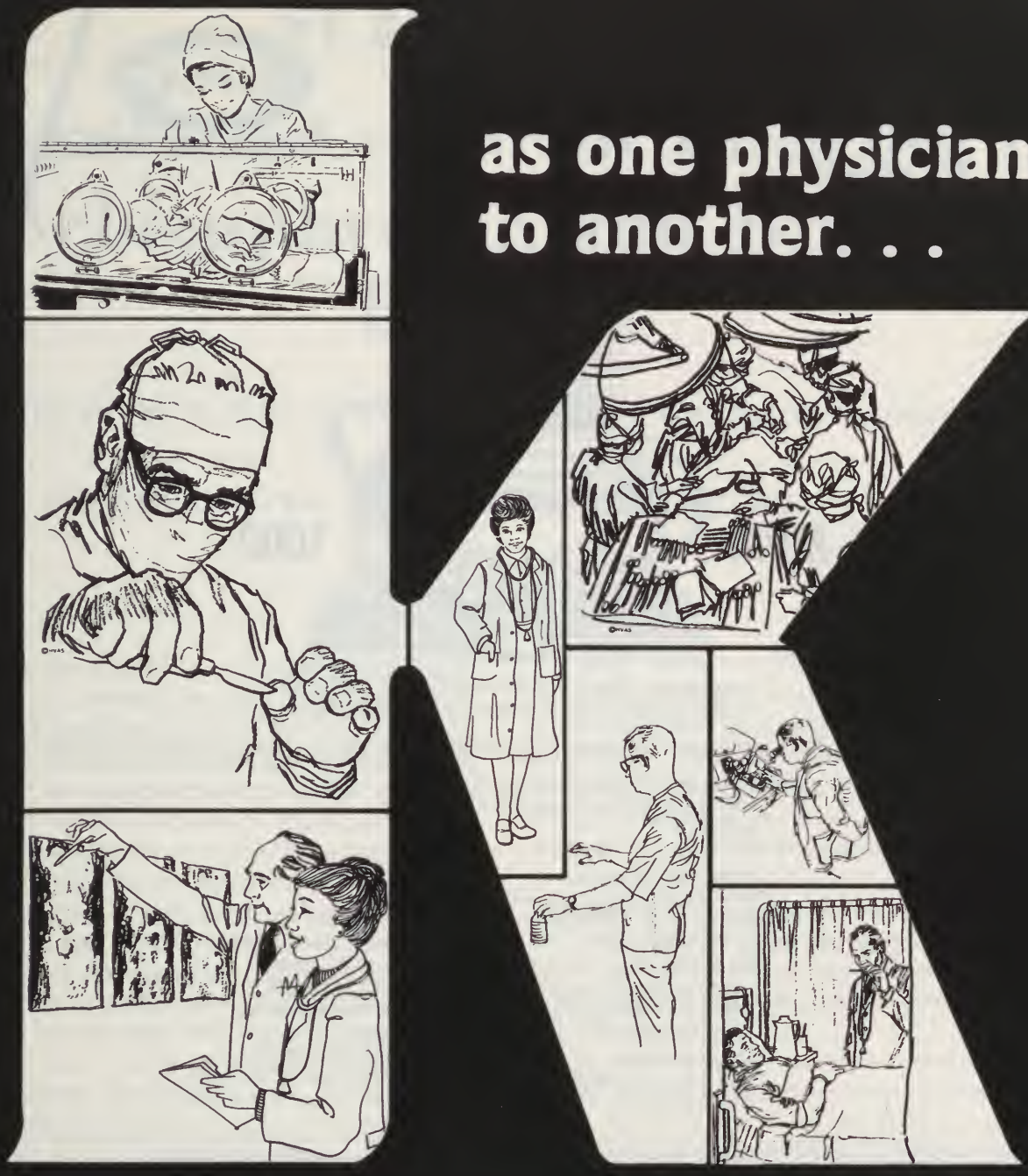
The AMA will continue its purposes of representing the medical profession, being a source of information related to medicine, watching over the standards of conduct of the profession, and overseeing the standards of medical education.

The areas of emphasis in 1985 of the AMA will be:

1. Preserving the quality of care by such methods as cable programming and new consumer books.
2. Helping physicians respond to the changing environment by directing physician profile services, marketing principles, and physician reimbursements projects.
3. Strengthening relationships within medicine by committees on foreign medical graduates, and young physicians, and the first national medical staff conference this autumn.
4. Revitalizing Membership Growth by developing better member benefits.
5. Continuation of development of the Health Policy Agenda for the American people.
6. Expanding the collection and provision of information through a new journal on diagnostic imaging, electronic text editing, medical information network, census of physician professional activities, and many others.
7. Securing AMA's future through development of properties and prudent management of resources.

1985 will be a good year and all of us will need to work together. You can be assured the officers, trustees, and staff of KMA will be diligent on your behalf.

Wally O. Montgomery, M.D,
KMA Vice President



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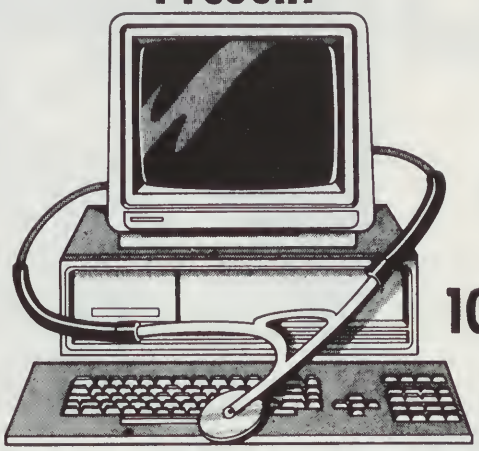


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Cerebral Cat Scan Imaging in Schizophrenic and Bipolar Patients

STEVEN LIPPMANN, M.D., MANOOCHEHR MANSHADI, M.D., HILLEL BALDWIN, B.Sc.,

GEORGE DRASIN, M.D., HERBERT WAGEMAKER, M.D., JOHN RICE, M.D.

AND SAAD ALRAJEH, M.D.

The introduction of computerized axial tomography (CAT) has provided new ways to study the neuropathology of psychiatric patients. The CAT scanner affords *in vivo* assessments of central nervous system (CNS) morphology and expands research options which examine brain structure. It would be significant if a consistent CNS abnormality could reliably be demonstrated within specific psychiatric disorders.

CNS atrophy is associated with alcohol abuse.[1] CAT scan imaging has also illustrated cerebral ventricular enlargement in schizophrenia.[2-6] Such ventriculopathy was not related to medication or electroconvulsive therapy (ECT), but correlates with impaired neuropsychological performance and illness severity.[2-6] Smaller-than-control cerebellar dimensions are also reported.[7] Even before the advent of the CAT scanner, neuropathology was reported in schizophrenia.[8] CAT-scan-recorded data demonstrating low densities in cerebral tissue of schizophrenics further enhances speculation about structurally based brain dysfunction.[9] Abnormal CNS anatomy is likewise observed in bipolar disorders, both cerebral atrophy[10] and cerebral ventricular enlargement.[11]

This investigation compares cerebral morphology by CAT scan in schizophrenia to bipolar disorder cases and controls. Study populations are unselected as to alcohol drinking patterns but are divided according to alcohol abuse histories.

Methods

CAT scans from 72 Louisville General Hospital psychiatric inpatients were compared with 79 controls. All subjects were within an age range of 16-63 years, with 32 being the mean. Without clinical data and in randomly mixed fashion, the scans were blindly submitted to another hospital for independent, retrospective interpretation by two neuroradiologists. Control scans were from age-matched emergency room patients with negative evaluation, trauma or headache presentations. The control population had no known alcohol abuse nor neuropsychiatric disease and no other selection or exclusion criteria.

Clinical information was retrospectively extracted blindly by chart review. A research psychiatrist determined diagnostic illness and alcohol abuse groupings. From a raw sample of 90 cases, 72 patients met *DSM-III* criteria for schizophrenia (n = 54) or bipolar (manic depressive) disorder (n = 18). Alcohol abuse, also according to *DSM-III* definitions, was identified in 20 schizophrenic and 12 bipolar patients. All had been exposed to many psychoactive medications, particularly neuroleptics (antipsychotic, major tranquilizer drugs). A past history of ECT was obtained from two schizophrenic and two bipolar subjects.

The EMI 1010 head scanner was employed to obtain 10 mm contiguous slices from the base of the skull to the vertex. Three cerebral parameters were monitored: ventricular size, sulci width, and cerebral fissure dimensions. Scans were clinically assessed as normal,

mildly abnormal, or showing more significant degrees of smaller-than-normal cerebral cortex dimensions. A planimeter was employed initially to verify reading accuracy. The reports were rated as "1" for normal, "2" for mildly abnormal, and "3" for more pronounced findings. Both neuroradiologists independently interpreted the scans, and in each case readings were numerically averaged. Only an averaged rating of 2.0 or greater was classified as abnormal for the study. Averaged readings of over 2.5 occurred in one schizophrenic and two bipolar subjects. Out of 72 scans, nine cases demonstrated inconsistencies in the ventriculopathy readings. Such discrepancies were noted in one of the 79 control scans. Differences between neuroradiologist interpretations, at the 95% confidence limits, were 0.09 ± 0.03.

Results

Table 1 illustrates the results. The statistical analysis was to measure the level of significance of the differences between the findings in each study subgroup and the entire control population. A proportional comparison method was employed (z).

Enlargement of the cerebral ventricular system was the most striking observation. This finding was noted in statistically significant degrees in all test groups, schizophrenic and bipolar. Alcohol abuse in these subjects was associated with more pronounced ventriculopathy; however, the frequency of large ventricles was not statistically significant as compared to the nondrinkers.

Cerebral sulci and fissure evaluations revealed smaller-than-normal cortex dimensions, statistically significant in schizophrenia and non-significantly in bipolar cases. Without alcohol abuse, these cortical indices were not abnormal to statistical significance. With alcohol abuse, abnormal cortex findings occurred to a statistically significant degree in both groups.

Five ECT-treated patients showed no consistent pattern of cerebral abnormality. All three schizophrenic cases had normal scans. One of the two bipolars, who also abused alcohol, demonstrated ventriculopathy and smaller-than-normal cortex findings.

Among the schizophrenic patients with alcohol abuse, four subjects demonstrated ventriculopathy and cortical abnormality; the non-alcohol abuse group shared this pattern twice. In bipolar patients, two alcohol abusers and none of the non-abusers showed changes in both ventricles and cortex. No control case demonstrated abnormality in both areas.

Discussion

This investigation confirms reports of CAT-scan-recorded cerebral pathology in schizophrenia. Ventriculopathy was the most obvious finding here and in the literature. Cerebral sulci and fissure abnormalities were less remarkable. To maintain the control population as relatively unselected, no additional information was solicited. In non-alcohol abuse schizophrenics, only the ventriculopathy was statistically significant. Research patient alcohol abuse was associated with more abnormal observations; yet, alcoholism in this study failed to be a statistically significant factor at increasing the frequency of ventriculopathy in schizophrenia.

Similar CNS morphology was documented on CAT scans of bipolar subjects. Ventricular enlargement was more frequent than abnormal cortical parameters. Non-alcohol abuse bipolar cases were significantly abnormal only in ventriculopathy. Because of the small sample size (one positive in six cases), the overall significance of the finding is questionable. Alcohol abuse, so very common in affective (mood) disorders, was present in two-thirds of the bipolars and associated with an increase in all findings. A larger sample size might better delineate the effect of alcohol abuse on these observations.

The significance of these observations is not determined. When in the course of illness the neuropathology develops is unknown. Neither etiologic nor treatment implications are made. Abnormal cerebral morphology is associated with alcohol abuse and demonstrated CAT scan. A past history of ECT was associated with no pattern of abnormality; one affected bipolar patient also abused alcohol.

Cerebral pathology was observed in schizophrenic and bipolar patients. Our scan interpretations were neuroradiologists' clinical impressions, yet such subjectivity is an investigational weakness. There now exist more advanced scanners and other instruments which afford more sophisticated readings. The retrospective nature of the project also injects bias. Longitudinal investigations which focus on the implications of such findings are recommended.

This investigation, which differentiated between alcohol abuse and non-alcohol users, corroborates several other CAT scan studies in schizophrenia. The presence of ventricular enlargement in the affective disease patients is a newer finding. Further investigations are indicated, especially in bipolar patients. Studies to compare CAT scans of psychiatric and non-psychiatric alcohol abuse patients are also warranted.

TABLE

Cerebral Abnormality by CAT Scan

Group	N	Cortex*			Ventricle Enlargement		
		N	%	Significance	N	%	Significance
Controls	79	5	6.3	—	1	1.3	—
Schizophrenia	54	9	17	$p<.05$	11	20	$p<.001$
Alcoholic	20	5	25	$p<.02$	7	35	$p<.001$
Non-alcoholic	34	4	12	NS	4	12	$p<.02$
Bipolar Disorder	18	3	17	NS	5	28	$p<.001$
Alcoholic	12	3	25	$p<.05$	4	33	$p<.001$
Non-alcoholic	6	0		—	1	17	$p<.02$

*widening of cerebral sulci and fissures
NS - statistically non-significant

Summary

Cerebral ventricular enlargement was demonstrated by CAT scan more often in 54 schizophrenic and 18 bipolar disorder patients than in 79 controls. Abnormally wide sulci and fissures were less significantly observed. Alcohol abuse was associated with the more abnormal findings.

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From the Department of Psychiatry and Behavorial Sciences, University of Louisville School of Medicine and Jewish Hospital, Louisville, KY.

Note: DSM III is the American Psychiatric Association's Diagnostic and Statistical Manual, 3rd Edition.

Rabies in Kentucky

STEVEN T. HAYNE, M.D., DENNIS W. OBERLIES, M.D., WELDON SCHOTT, M.D.

AND MARY VAETH, M.D.

Sylvanic (wild) and domestic animal rabies have been isolated with increasing frequency in the state of Kentucky. Although only 29 cases were identified in 1977, this figure jumped to 134 by 1982. In 1983, the total of animal rabies isolations fell to 83. This precipitous decline was seen among both domestic and sylvanic animal isolations. Animal rabies poses a substantial rabies risk to the human population; administration of Human Diploid Cell Vaccine (HDCV) and Rabies Immune Globulin (RIG), if given soon after the biting incident and in accordance with established protocols, will prevent the development of rabies in the exposed victim. The use of HDCV provides a 99.9% protective antibody titer in those vaccinated. RIG gives immediate protection but does not convey long-term immunity. The analysis of multiple variables involved in the biting incident will determine the need for post exposure immunization. These variables to be addressed include prevalence of sylvanic and domestic animal rabies, provoked versus non-provoked bite, animal species involved in the attack, vaccination status of the animal, and veterinarian animal examination prior to and during the quarantine.

Rabies is an acute viral encephalitis that is, with few exceptions, fatal to humans. Of great concern to health care providers is the documented increase of rabies isolations among both the sylvanic and domestic animal populations. The Center for Disease Control (CDC) noted a 69% increase in animal rabies in 1981 when compared to yearly average rabies isolations reported during the previous five years.[1] This increase was found predominantly in the sylvanic population, while rabies in domestic animals showed a somewhat smaller magnitude of increase.

Kentucky also had a remarkable increase in animal rabies isolations. In 1977-78, an average of 54 animals was found to be positive on a postmortem rabies examination as compared to an average of 139 for the subsequent four years. [Figure 1] This represents a 258% annual increase in rabies isolations. This ominous trend of increasing animal rabies isolations may have been reversed. Eighty-three rabies positive animals were identified in 1983. This figure represents the lowest total number of rabies isolations since 1978. The 1983 rate of rabies isolations is still higher than that seen in 1977 when only 29 rabid animals were identified. Sylvanic animal rabies have shown the greatest increase during the last five years when compared to 1977. Though more domestic animal rabies isolations were also noted in this time period, the rate of increase was less than that found among sylvanic animals.

The epidemiology of rabies is, at the present time, poorly understood. Skunks are the most commonly isolated rabid animals in the United States and in Kentucky. In 1983, 52 skunks were found to be rabid in Kentucky. This represents 63% of all positive cases for the last calendar year. [Figure 2] It has been postulated that skunks, weasels, civets and ferrets represent the reservoir of the rabies virus both in the United States and other geographic areas where endemic rabies is found.

Though human rabies is a rare occurance in the United States, the dramatic increase in sylvanic and domestic animal rabies presents a substantial risk to citizens of Kentucky and the United States at large. Two human cases of rabies were treated in 1982 in the United States and subsequently two more cases were diagnosed during the first nine months of 1983. All four patients succumbed to the disease in spite of intensive supportive therapy.

The single stranded RNA virus is a member of the Rabdo virus family. The virion which measures up to 180 nm. in length has a lipoprotein membrane and it is for this reason that lipid solvents render the virus noninfective. Other compounds such as strong acids or bases, formalin, mecuric chloride as well as sunlight and ultraviolet radiation inactivate the virus.

FIGURE 1

Kentucky Rabies Isolation

1977 - 1983



	1977	1978	1979	1980	1981	1982	1983
TOTAL	29	78	138	154	131	134	83
Domestic	9	17	15	24	17	20	21
Sylvanic	20	61	123	130	114	114	62

FIGURE 2
Rabies in Kentucky
1977 - 1983

SYLVANIC	1977	1978	1979	1980	1981	1982	1983
Skunk	12 (41%)	38 (49%)	107 (78%)	93 (60%)	89 (68%)	97 (72%)	52 (63%)
Fox	58 (28%)	20 (26%)	14 (10%)	26 (17%)	7 (5%)	7 (5%)	4 (5%)
Bat		2 (3%)	2 (1%)	11 (7%)	18 (14%)	9 (7%)	5 (6%)
Coyote		1 (1%)					
Opossum						1 (1%)	
Raccoon							1 (1%)
DOMESTIC							
Dog	3 (10%)	9 (12%)	12 (9%)	15 (10%)	9 (7%)	8 (6%)	14 (17%)
Cat	1 (3%)	1 (1%)		1 (1%)	2 (2%)	2 (1%)	1 (1%)
Cow	5 (17%)	5 (6%)	3 (2%)	5 (3%)	5 (4%)	3 (2%)	2 (2%)
Horses		2 (3%)		3 (2%)	1 (1%)	7 (5%)	3 (4%)
Swine							1 (1%)
TOTAL	29	78	138	154	131	134	83

Rabies virus has a variable human incubation period ranging from as short as three weeks to as long as one year or more. Data gathered in Ethiopia revealed a mean incubation period of 30 days for head wounds, 60 days for upper extremity trauma, and 79 days for injuries to the lower extremities.[2] However, considerable variance in incubation times for the three wound sites were noted and time overlap for the three bite sites was found. Two important variables that impact on incubation time are the size of inoculum (severity of bite) and the distance of the injury from the central nervous system (location of the bite).

During the prodromal phase, the sign and symptoms of rabies include such nonspecific findings as fever, headache and sore throat. Abnormal neurological symptoms located at the bite site may be of value in making a diagnosis of rabies. These symptoms include parathesia, tingling, pain, burning, cold sensation, and pruritis. After the short prodromal phase, the patient enters an excitation period during which hydrophobia often occurs. The spasmatic contraction of muscles of respiration and swallowing may be elicited by the sight of water or the smell of food as well as attempts by the patient to drink or swallow. The patient may succumb during one of these fits or enter the terminal paralytic phase during which flaccid paralysis develops. Soon coma and vascular collapse occur with subsequent death.

A physician is all too often called upon to evaluate suspected rabies encounters and determine the need for anti-rabies proplylaxis. By carefully evaluating five key variables, the physician can quantitate the rabies risk and make a rational decision on the need to initiate antirabies treatment.[3,4,5]

These key variables to analyze in the determination of to treat or not to treat potentially rabies exposed victims include the following: Prevalence of sylvanic and domestic animal rabies, provoked versus nonprovoked bite, animal species involved in the attack, results of veterinarian quarantine examination, and vaccination status. [Figure 3]

Prevalence of Sylvanic and Domestic Animal Rabies [Figure 4]

The most commonly isolated rabid sylvanic animals in Kentucky for the period 1977-1983 were skunks (63%). Other sylvanic animals known to have rabies during this time included foxes (5%), and bats (6%). One opossum (1982) was found to be rabid as was one coyote in 1978 and one raccoon in 1983. Domestic animals were not commonly noted to be positive for rabies, but included dogs (17%), cows (4%) horses (2%) and cats (1%).

Of epidemiological interest is the increasing isolation of rabid raccoons in the Atlantic Coast states. Raccoon rabies first noted in Florida, has been reported in Virginia and Maryland as well as other mid-Atlantic states.

Provoked Versus Non-Provoked Bite

Healthy sylvanic animals will seldom attack a human unless provoked. However, a rabid animal may allow humans to approach and subsequently inflict a bite. Care must be used when interpreting bites. Any behavior preceived by the animal as threatening, teasing, or startling with a subsequent animal attack should be considered a provoked attack. Careful elicitation of a biting incident involving a child will often reveal the

FIGURE 3

Critical Treatment Indicators

Animal Not Secured

High Risk of Rabies: in species of biting animal (raccoon, bat, skunk, fox, etc.)

1. Treat with Human Diploid Cell Vaccine and Rabies Immune Globulin immediately.
2. Continue search for animal.
3. Determine antirabies antibody level 2-3 weeks after last Human Diploid Cell Vaccine dose if suspect patient is immunocompromised.

If animal is located and antirabies fluorescent antibody test is negative, discontinue antirabies prophylaxis protocol.

If antirabies fluorescent antibody test is positive, complete Human Diploid Cell Vaccine protocol.

Low Risk of Rabies: in species of biting animal (dog, cat, rabbit, rat, mouse, chipmunk, bird, etc.)

Consult with veternarian.

Continue search for animal.

If veternarian does not present conflicting epidemiological data and no abnormal animal behavior is noted: DO NOT TREAT.

If abnormal animal behavior documented, establish independent risk variables. Treatment may be indicated.

If animal not found and evidence supports provoked bite, DO NOT TREAT.

Animal Secured

Consult the veternarian and review the behavior of animal, risk of rabies in sylvanic and domestic animal population in regional area, if bite is provoked vs nonprovoked, and vaccination status.

1. Abnormal behavior suggestive of rabies

or

2. High risk of rabies in animal (bat, raccoon, skunk or fox)

or

3. Nonprovoked bite.

A. Kill animal and perform antirabies fluorescent rabies antibody test.

B. Commence treatment with RIB and HDCV.

C. If antirabies fluorescent antibody test positive, complete treatment protocol, determine antirabies antibody titer 2-3 weeks after last Human Diploid Cell Vaccine if suspect patient is immunocompromised.

D. If antirabies fluorescent antibody test is negative, discontinue treatment protocol.

1. No abnormal behavior.
2. Low risk of rabies in animal.
3. Provoked bite.

Sylvanic Animal

A. Kill animal and do FRA test.

B. Do not initiate treatment unless FRA test positive.

Domestic Animal

A. Quarantine 10 days.

B. Do not treat. If abnormal behavior appears during quarantine, kill animal, get antirabies fluorescent antibody test and start treatment. If antirabies fluorescent antibody test positive, complete treatment.

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FIGURE 4

Rabies Isolation by Counties

1977 - 1983

COUNTY	1977	1978	1979	1980	1981	1982	1983
Adair			1			3	2
Allen		1	4	2		1	3
Anderson		2		2		1	
Barren			1	9	2	2	4
Bath			2	2		4	
Bell						1	
Boone				2		2	
Bourbon		1	5	1	2	4	1
Boyle	3	5	21	3	10	1	
Bracken				1			
Breckinridge	1	1			2		
Butler	1	1	1	3		3	1
Caldwell					2	1	
Calloway							1
Clark	1						
Clinton							1
Campbell					2		
Carter	1			2	2	1	
Carroll			1		1		
Casey		1	1				
Christian			1		2	1	
Clay						2	
Clinton			1	1			
Cumberland		1					
Crittendon					1	2	
Daviess		13		1			
Edmonson	2				1		
Estill					1	4	
Fayette	3	6	7	9	15	21	12
Fleming				1	2		
Floyd					1		
Franklin			1	8	9	1	
Garrard	1	5	10	3	3	5	
Garrett							1
Grant				1		3	
Graves		1					
Grayson	2	1	1	1			
Green			2	1			2
Hancock							
Hardin							
Harrison							1
Hart							
Henderson					1		
Henry		4		1			1
Hopkins					1	1	
Jackson				1	3	2	
Jefferson				4		2	1
Jessamine	1		8	6	5	4	3
Larue					2	1	1
Letcher						1	
Laurel						1	1
Lewis					1		
Lincoln	2	1	1	3	8	14	8
Livingston				1	1	1	
Logan				1	1	3	
McCracken			1				1
McCreary							1
Madison			19	3	6	3	1
Marion				5	2	2	4
Marshall							1
Martin						1	
Mason	1	1		4	2	1	
Meade				1	1	1	
Mercer	1	3	9	6	7	5	3
Metcalf				3			
Montgomery				5			2
Monroe				3		1	2
Morgan							1
Muhlenberg						1	
Nelson					1		
Nicholas		1	3		1	1	
Ohio	4	1					
Oldham						1	
Owen				3	1		
Pendleton				6		2	1
Pike				1			
Pulaski			2	5	3		1
Rockcastle		1	8	2		1	1
Robertson				3			
Rowan		2		4		2	
Russell						3	
Scott	2	8	7	7	2	4	3
Shelby		1			2		
Simpson		1	2	3		4	
Spencer				1			
Taylor		3	2	1		1	1
Todd				1			
Trigg			2				
Union							1
Warren	2	1	6	3	5	3	3
Washington			1		1		
Wayne				2	2		3
Webster					1		
Wolf			1				
Woodford	1	3	5	1	4	2	8

FIGURE 5

TREATMENT

POST EXPOSURE

Prior Treatment	No Prior Treatment or Prior Treatment with Inadequate Antirabies Antibody Titer
1. Previously documented adequate Antirabies Antibody Titer Three 1.0 ml/IM doses HDCV or Three 0.1 ml/ID and antirabies antibody titer 1:16 Human Diploid Cell Vaccine Two one ml doses on days 0 and 3/IM Do not give Rabies Immune Globulin 2. Received ID vaccine and no documentation of antirabies antibody riter 1:16 Human Diploid Cell Vaccine One ml on days 0,3,7,14,28 and Rabies Immune Globulin (up to day #8) A. 10 IU/Kg/IM B. 10 IU/Kg infiltrate at site of wound	Human Diploid Cell Vaccine, one ml on days 0,3,7,14,28. Rabies Immune Globulin (up to day #8) A. 10 IU/Kg/IM B. 10 IU/Kg/infiltrate at site of wound.

PRE-EXPOSURE

Human Diploid Cell Vaccine Three 0.1 ml doses on days 0,7 and 28./ID	Human Diploid Cell Vaccine Three one ml doses on days 0,7 and 28/IM

Determine antirabies antibody titer 2-3 weeks after completion of series. If titer less than 1:16 give one 0.1 ml dose and repeat antirabies antibody titer in 2-3 weeks.

attack was provoked though a child and even the parents may not recognize his actions were of a provocative nature.

Animal Species Involved in the Attack [Figure 2]

As noted, skunks present a substantial risk for transmission of rabies. Likewise any bat, fox or coyote bite should be considered to be inflicted by a rabid animal until proven otherwise.

Domestic animals have a much lower incidence of rabies. Among this subgroup, dogs are the most commonly isolated rabid animal in Kentucky. As previously noted, rabies has been found less frequently among cows, horses, and cats.

Though only one rabid raccoon was found for the period 1977-1983, any raccoon bite carries a substantial rabies risk.

Vaccination Status

Vaccinated domestic animals are at low risk for transmission of rabies. No rabies vaccine is currently available for sylvanic animals including exotic pets. The vaccination status of any animal must be verified.

Veterinarian Examination.

Evaluation of animal behavior is best left to an expert, a veterinarian. The World Health Quarantine Expert Committee on Rabies currently recommends a 10-day quarantine for healthy biting animals. However, it has been noted that an infected dog remained asymtomatic while secreting the virus for a period of 13 days.[6] This may necessitate a lengthening of the quarantine to at least 13 days.

Care must be used when evaluating sylvanic animal behavior. All too often domestic animal responses are used in lieu of normal or expected wild animal behavior patterns. It is of special importance that a veterinarian review all potentially rabid sylvanic animals to check for abnormal behavior in these animals if the decision not to sacrifice the animal is taken.

Anti-rabies Treatment

Of considerable value in the initial treatment is the use of copious amounts of water to flush the wound site. As previously noted, a lipoprotein coat surrounds the rabies virion, and certain chemical solutions may be

efficacious in inactivating the virus and thus reducing the size of the inoculum. All wounds should be thoroughly washed with soap and rinsed with sterile water.

The corner stones for anti-rabies prophylaxis includes both active and passive immunization [Figure 5].[7] Active immunization requires the use of Human Diploid Cell Vaccine which in the post-exposure victim is given as a 1.0 ml. dose intramuscularly on days 0, 3, 7, 14, and 28. An accompanying passive immunization should be given up to the eighth post-exposure day. This necessitates the use of Rabies Immune Globulin; a 10 IU/Kg of globulin should be given intramuscularly and a similar dose of 10 IU/Kg should be given directly into the wound site. Individuals who have received prior treatment should be treated according to a second protocol and they require two 1 ml doses of Human Diploid Cell Vaccine given intramuscularly on days 0 and 3. Rabies Immune Globulin should not be given to these victims.

An intradermal route of administration of Human Diploid Cell Vaccine for pre-exposure prophylaxis using 0.1 ml has been shown to give poorer antirabies antibody titer than the routine intramuscular route of administration. The Center for Disease Control recommends that an antibody titer of 1:16 or greater must be ascertained two to three weeks after immunization when using the intradermal route.[8,9] Post exposure and pre-exposure treatment protocols are reviewed in Figure 5.

The Human Diploid Cell Vaccine administration in post-exposure cases resulted in 1,299 of 1,300 patients demonstrating a protective antibody titer.[10] In addition, the Immunization Practices Advisory Committee noted 100% of more than 500 patients given the pre-exposure standard protocol developed a seroconversion. It is no longer necessary to document a protective antirabies antibody titer unless there is reason to believe the patient cannot mount an antibody response.

Common reaction to the Human Diploid Cell Vaccine are minimal in nature and include pain, erythema, swelling and itching. Other reactions include headache, nausea, abdominal pain, muscle ache, and dizziness.

Submission of Animal Remains

Containers for shipping animal heads or remains are obtained from the County Health Department in Kentucky. Those shipping remains from the eastern part of the state should submit the tissue to the State Laboratory in Frankfort, Kentucky. Those submitting heads and animal remains from the western part of the state should submit the material to Breathitt Diagnostic Laboratory in Hopkinsville, Kentucky. It should be noted that Jefferson County performs their own rabies analysis.

When shipping heads or animal remains for rabies identification, care must be used not to freeze the remains. Wet ice or refrigeration are the methods of choice for cooling the specimens. Sealed containers with appropriate documentation should be used in all cases.

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From the Department of Pathology, Department of Anatomic Pathology, Department of Clinic Pathology and Department of Preventive Medicine, Blanchfield Army Community Hospital, Fort Campbell, KY. The opinions expressed by the authors are not necessarily those of the United States Army or the Department of Defense.

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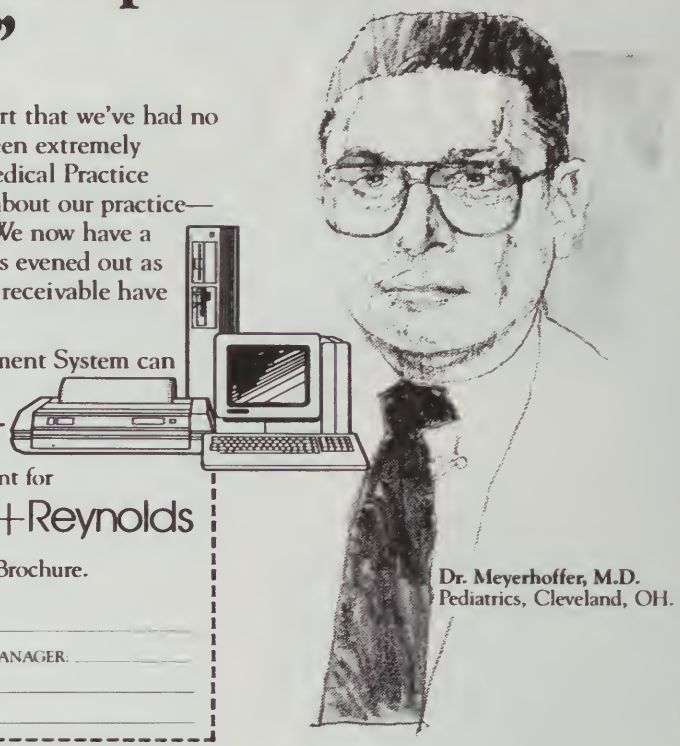
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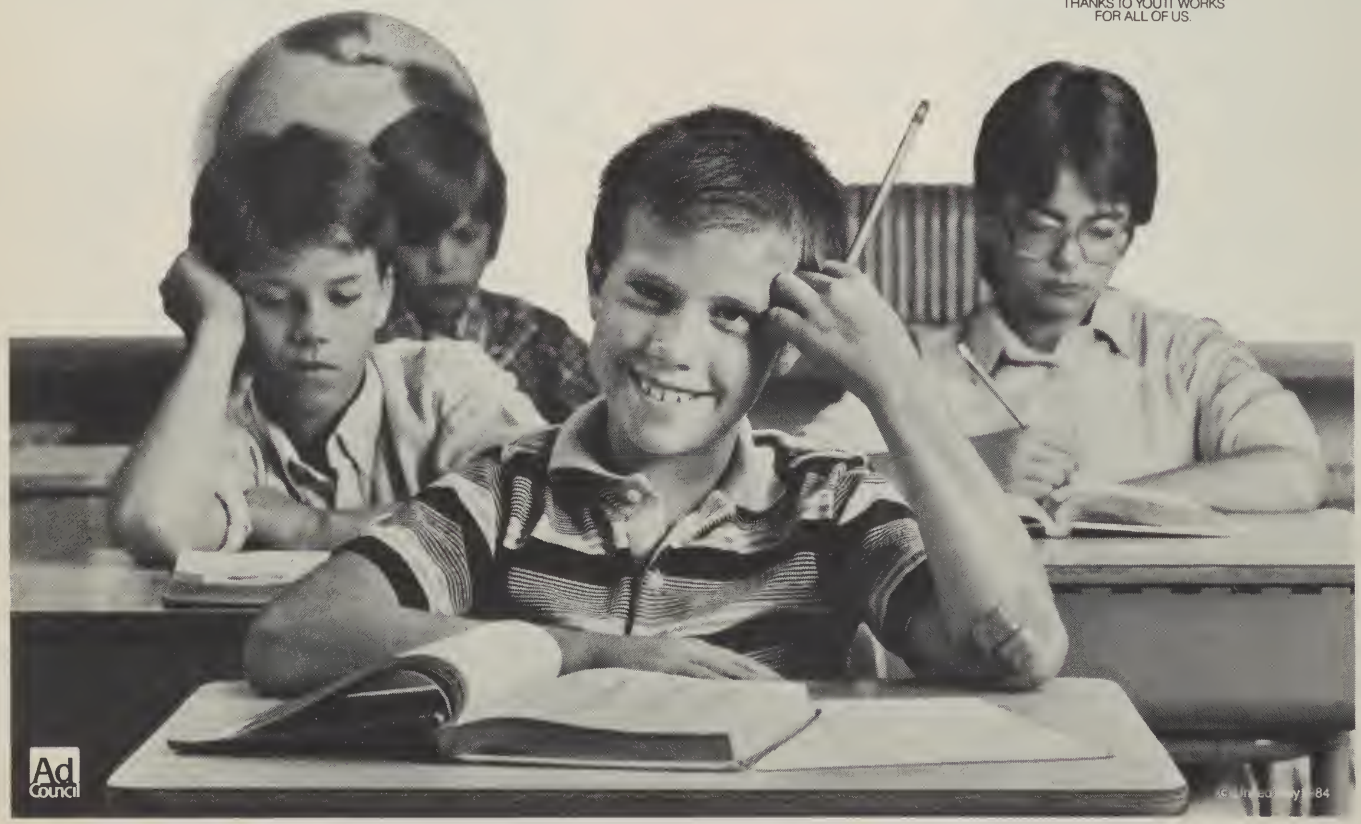
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Management of Papillary Cancer of the Thyroid

DANIEL A. HOWARD, M.D. AND J. DAVID RICHARDSON, M.D.

Well-differentiated carcinoma of the thyroid gland is a common clinical problem. In general, this type of cancer is a low-grade malignant process; however, it is important for the practitioner to recognize the factors, which increase the risk to the patient. The history of thyroid surgery is discussed as are the various diagnostic and therapeutic modalities in current use for thyroid carcinoma. It is also important to assess the relative risk to the patient of the proposed therapy versus the natural history of the disease. In addition, fine needle aspiration cytology, an increasingly effective technique for diagnosing thyroid nodules, is discussed.

Historical Aspects

The extirpation of the thyroid gland for goiter typifies, perhaps, better than any operation the supreme triumph of the surgeons' art.

Halsted

For over 3500 years, references have been made to goiter. The first recorded, successful thyroidectomy was performed about 942 AD. Most thyroid surgery at that time was reserved for massive lesions with respiratory compromise, and the first modern partial thyroidectomy was done by Desault in 1791. Over the next 60-70 years, thyroidectomy was performed by few surgeons with a horrendous 44% mortality rate; this occured prior to anesthesia and antisepsis, and many of these patients succumbed due to uncontrollable hemorrhage and infection. Most surgeons of the mid 1800s felt that thyroid surgery was never justified. However, with the development of hemostatic clamps and surgical antisepsis, thyroid surgery became a possibility.

In 1872, Theodor Kocher succeeded to the surgical chair at Berne and began the career that earned him the title of Father of Thyroid Surgery. With iodine deficiency goiter being extremely common in the inland, isolated Swiss population, Kocher was provided with a remarkable patient population with which to work. In his 45 years as the Professor of Surgery, Kocher operated on approximately 5000 goiters with an operative mortality of only 0.5%. In his landmark paper of 1883, he noted that his patients with total thyroidectomy almost invariably developed myxedma and he described the mental and physical changes associated with this. Thereafter, he utilized total thyroidectomy only in patients with malignant disease or when it was necessary for tracheal decompression. Kocher's contributions in the understanding of myxedema after total thyroidectomy, the operative techniques of thyroid surgery and his pathological studies earned him the 1909 Nobel Prize in medicine.

Another surgeon who contributed greatly to the understanding of thyroid surgery and pathology was Theodor Billroth. As chairman of surgery at Vienna, he established a school of surgery that was to dominate western European thought for many years. In addition to his own work, Billroth stimulated his students to make important contributions to thyroid surgery. One of these pupils, Anton Wolfer, described postthyroidectomy tetany and recognized the danger of injury to the recurrent laryngeal nerve. Johann von Mikulicz, another student, was known for his observation that leaving a portion of thyroid intact along the inferior thyroid artery would prevent the dreaded complications of total thyroidectomy, namely myxedma and tetany. He also showed that healing was not impaired by cutting and ligating thyroid parenchyma. This procedure evolved into the modern subtotal thyroidectomy and is even more amazing considering parathyroid and thyroid function were still not known at that time.

William S. Halstead was responsible for the development of thyroid surgery in the United States following his study in Vienna. He developed a standardized technique of thyroidectomy and published a classic mono-

graph, *The Operative Story of Goiter.* Other Americans who were instrumental in the evolution of thyroid surgery were Charles H. Mayo, George W. Crile and Frank H. Lahey.[1]

In 1943, a very important discovery was made with the development of thioracil and other antithyroid drugs. These antibiotics served to greatly improve the operative risk in the hyperthyroid patient by markedly decreasing the incidence of postoperative thyroid storm. Further progress in the treatment of thyroid disorders was made in 1981 when an English physician administered sheep thyroid extract to a myxedematous patient with marked improvement in symptoms.

Classification of Thyroid Cancer

Malignant neoplasms of the thyroid gland can be divided into the following three broad groups: well-differentiated thyroid, medullary and undifferentiated (Table 1).

TABLE 1.

Classification of thyroid cancers

Well-differentiated	90%
papillary	
follicular	
mixed papillary follicular	
Medullary	7%
Anaplastic	3%

Diagnostic Workup

While there are no exact findings in the history and physical exam to rule out malignancy, several signs and symptoms should arouse suspicion for thyroid cancer. Previous head and neck irradiation is associated with an increase in cancer. Complaints of recent change in size, cervical adenopathy, pain, hoarseness and tracheal obstruction are all worrisome findings; however, most patients with well-differentiated thyroid cancer are asymptomatic. Thyroid function tests are usually obtained in these patients, but the results are almost always normal and, even when abnormal, are not indicative of malignancy.

The traditional workup can be seen in Figure 1 and has included thyroid scan, ultrasound and then surgical excision.[2]

Because of the benign nature of most thyroid cysts, it is generally considered worthwhile to obtain an ultrasound study in the patient with a cold nodule. This test is completely noninvasive and can provide a large amount of information about the internal anatomy of the thyroid gland. There is no specific sonographic picture for thyroid malignancy in solid lesions, but it can differentiate solid from cystic from mixed lesions with 95-100% accuracy. Purely cystic lesions of less than 4 cm in diameter are benign in over 98% of cases but should still be aspirated. These lesions should be excised if there is residual mass after aspiration, bloody aspirate, cytology of aspirate suspicious for malignancy or recurrence of cyst. Mixed lesions are usually hemorrhagic cysts or solid tumors with areas of cystic degeneration. These have a 25% chance of malignancy and should be excised.

Administration of thyroxine has been used as both a diagnostic and a therapeutic measure in the treatment of the cold thyroid nodule.[3] Many physicians routinely place patients with a cold nodule on thyroid suppression and observe them for several months. Nodules that fail to decrease in size after several months are at increased risk of being cancerous and should be excised. One study showed an increase from 4 to 36% in malignancy using suppression as an additional discriminating factor. These patients require close follow-up. There are several indications to proceed with surgery without a trial of suppression. Absolute indications include a new nodule under 16 years or over 65 years, previous irradiation and marked pressure symptoms. Relative indications to proceed with surgery include male sex, failure to suppress the nodule in three months, inability to follow up and clinical impression. A three to six month delay in diagnosis has not been shown to adversely affect prognosis, which is fortunate considering the indolent nature of most thyroid carcinomas. It should be noted that well-differentiated carcinomas can also respond to TSH suppression, which has important therapeutic implications but can present a problem in patients with partial regression of a cold nodule.[3]

Fine needle aspiration (FNA)[4,5] has recently become popular in the United States. This simple diagnostic maneuver can be done at bedside. Results are classified as definitely malignant lesions that are accurate to within 98-99% with minimal false-positive results, definitely benign lesions that have about a 7-10% false-negative rate, and suspicious lesions with an approximately 20% chance of malignancy.[6] This method does require the availability of a skilled cytopathologist to interpret these aspiration biopsies.

A cost-benefit analysis of diagnostic workup revealed a clear superiority of fine needle aspiration as compared to thyroid scan and ultrasound.[7] Based on numerous studies, a rational approach to thyroid nodules would be to use FNA as the initial screening procedure (Fig.

Table 2.
Risk group definition in well-differentiated thyroid cancers

	Total		Recurrence		Death		Percent of recurrences that die of disease
	No.	Incidence	No.	Rate	No.	Rate	
Highest risk group*							
Follicular	83	14%	33	40%	30	36%	91%
Men > 40							
Women > 50							
Intermediate risk group*							
Papillary	133	22%	38	29%	28	21%	74%
Men > 40							
Women > 50							
Low risk group*							
Follicular or papillary	384	64%	42	11%	15	4%	36%
Men < 40							
Women < 50							
Total	600		113	19%	73	12%	65%

*High vs. intermediate: NS recurrence; p=0.02 death. High vs. low: p=0.001 recurrence; p=0.001 death. Intermediate vs. low: p=0.0001 recurrence; p=0.001 death. High + intermediate vs. low: p=0.001 recurrence; p=0.001 death. (From Cady B, Sedgwick CE, Meissner WA, Wool MS, Salzman FA, Werber J: Risk factor analysis in differentiated thyroid cancer. Cancer 43:810–820, 1979.)

2). All patients with malignant or suspicious cytology should go straight to surgery as well as those in whom there is strong clinical suspicion. The definitely benign lesions could then proceed through thyroid scan, ultrasound, TSH suppression and reaspiration as indicated. These patients could be followed on TSH suppression for the long-term with further aspiration and/or excision as indicated.

Risk Factors

Thyroid cancers can be easily divided into three levels of risk based primarily on size, sex, age and pathologic tumor type (Table 2).[8] Medullary and anaplastic thyroid cancers, though far less common, carry much greater mortality.

Surgical Procedures

The various surgical procedures indicated in these patients include thyroid lobectomy, subtotal thyroidectomy, total thyroidectomy and total thyroidectomy and various lymph node dissections. Thyroid lobectomy is indicated in patients with occult thyroid carcinomas and may be considered in the low-risk patient with unilateral disease. The morbidity related to recurrent nerve and parathyroid injury is much less than with total thyroidectomy or even subtotal thyroidectomy. In the good-risk patient, total thyroidectomy does not improve the already excellent survival rates.[9] Total thyroidectomy may be advocated in patients exposed to radiation because of frequent multicentricity of these cancers. Subtotal thyroidectomy is indicated in patients with low- and high-risk carcinomas.[10] While it does not improve the overall survival in low-risk patients, the procedure does facilitate ablation and treatment with I^{131}, which becomes much more important in the high-risk patient with more frequent recurrences.

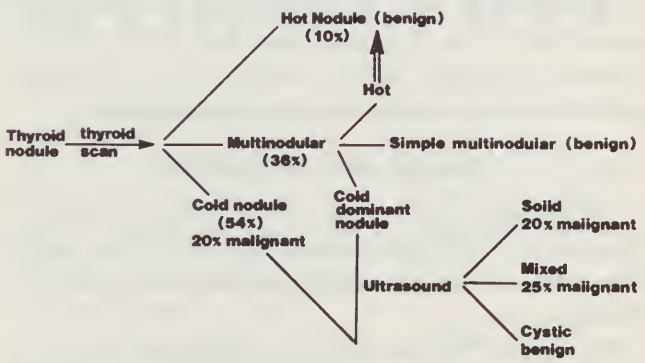


Fig. 1: Classic approach to thyroid nodules.

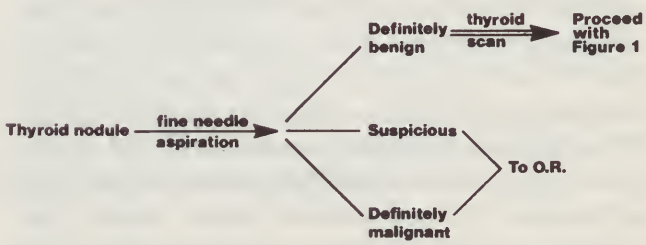


Fig. 2: A new approach to thyroid nodules.

Total thyroidectomy[11] is a controversial procedure with some surgeons advocating it in all cases of nonoccult thyroid cancer and others who feel that it is rarely justified. The rationale for total thyroidectomy in all patients is based on the frequent multicentricity of thyroid cancers. One study has reported as high as 78% bilateral foci of cancer.[12,13] Since most patients who undergo a simple lobectomy do not have recurrences, it is obvious that most of these foci must remain inactive for long periods of time. The main argument against total thyroidectomy is the much higher complication rate, which is 5-15%, with regards to hypoparathyroidism and recurrent nerve injury as compared to subtotal thyroidectomy. There appears to be an increase in recurrences of papillary cancer in patients with subtotal thyroidectomy, but this does not have a statistically significant effect on survival.[14]

Neck dissections are occasionally indicated in the low-risk patient population because 25% of these patients present with clinically palpable nodes. Limited node resections in only these patients are associated with a 98%, 15-year, disease-free interval.[7] Metastatic lymph nodes that appear after thyroid surgery are not associated with increased mortality, therefore, prophylactic node dissections in this population are rarely indicated.[9] High-risk patients present with palpable nodes in about 9% of cases. Since recurrences in this population have a much worse prognosis, up to 70-80% mortality, the initial surgery should include a thorough neck dissection if nodes are clinically palpable.

Postoperative Treatment

Administration of 0.2 mg of levothyroxine will effectively stop all TSH production. This method has markedly decreased the recurrences and deaths from papillary thyroid cancer.

Because of the capacity for well-differentiated thyroid cancers to concentrate iodine, the use of I^{131} in scanning and ablation has become feasible.[13] For the scans to become useful, there must be no residual normal thyroid, which can be accomplished by total thyroidectomy or by subtotal thyroidectomy with postoperative ablation. Follow-up total body scans can then be used to look for metastic disease. Pulmonary metastases have shown a marked response to high dose I^{131}. The main problems associated with I^{131} are the patient must become hypothyroid for two to four weeks to stimulate TSH and augment uptake. Another complication is the development of pulmonary fibrosis after treatment of widespread pulmonary metastases.

There can be little justification for the use of this inconvenient and expensive treatment as prophylaxis in the low-risk patient. It is difficult to improve on a 1-2% 20-year mortality. If there is development of metastatic disease, ablation with I^{131} can still be utilized as a treatment mode. Even though there is no conclusive data as yet for improved survival in high-risk patients, there does appear to be a trend towards improved survival. In the high-risk patient, this treatment should be considered.

Postoperative ablation also markedly facilitates long-term follow-up with total body I^{131} scans and serum thyroglobulin levels. Both of these are effective methods of evaluation for recurrent disease and can be used to document the effectiveness of I^{131} for treatment of metastatic disease.

In summary, papillary carcinoma of the thyroid gland is the most common endocrine tumor, and its virulence is consistently related to age. Management is invariably surgical and should be individualized for each patient. In the low-risk patient, enthusiasm for new and/or more aggressive therapeutic modalities must be tempered with the knowledge of extremely good prognosis, regardless of therapy. One should not initiate treatment plans with a higher morbidity than the underlying disease. In the high-risk patient, the more aggressive nature of the disease may necessitate a more vigorous approach.

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From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to: Daniel A. Howard, M.D., Department of Surgery, University of Louisville School of Medicine, Ambulatory Care Building, Louisville, KY 40292

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Morality, Ethics and Economics

Moralism, 1985 - has taken an unexpected leave from the home, the individual, the movies and television and has lighted, not where we think it should, on the legal community, but with voracious interest and intense opinions onto the current and future directions of medicine in America. The profound interest and intended influence of the lay and academic populace on the ethics and morals of medical practice and research are real, present and must be acknowledged and welcomed by medicine. It is a tribute to the breathtaking, brilliant advances in medical science that the public insists on consultation and participation in the formulations of new morals. These are unexpected and perplexing decisions.

With the difficult decisions we now face, who could have guessed the easy and universal acceptance of the concept of human organ transplantation that creates the gruesome concept of the harvest of human organs for the good of dying and suffering recipients? And then comes the ingenious, embryion technology that introduces the placement of a mechanical pump to replace the recipient's own heart requiring no sacrifice by a human brother and attracting the protests of huge numbers of self-styled and professional moralists. This comparison seems ludicrous.

But even so, Doctor Robert G. Wilson of Utah writes in the Sunday *Courier Journal* of November 11, 1984, that the mechanical heart "would divert literally billions of dollars away from meaningful research into the cause and prevention of heart disease" and that "medicine - should divert its efforts to finding causes of diseases, earning and efficiently teaching prevention insofar as citizens can accept prevention." Doctor Wilson emphasizes his view that "the artificial heart program as well as any future program that promotes an obligatory dependance on machines for continued human existence should be stopped before it continues further."

These statements ignore the realities that medicine accomplishes solutions of the causes of diseases and fails to influence behavior to practice prevention. Medical research moves faster than the evolution of medical morals and, in fact, defines the directions in which morals must develop.

A. Evan Overstreet, M.D.

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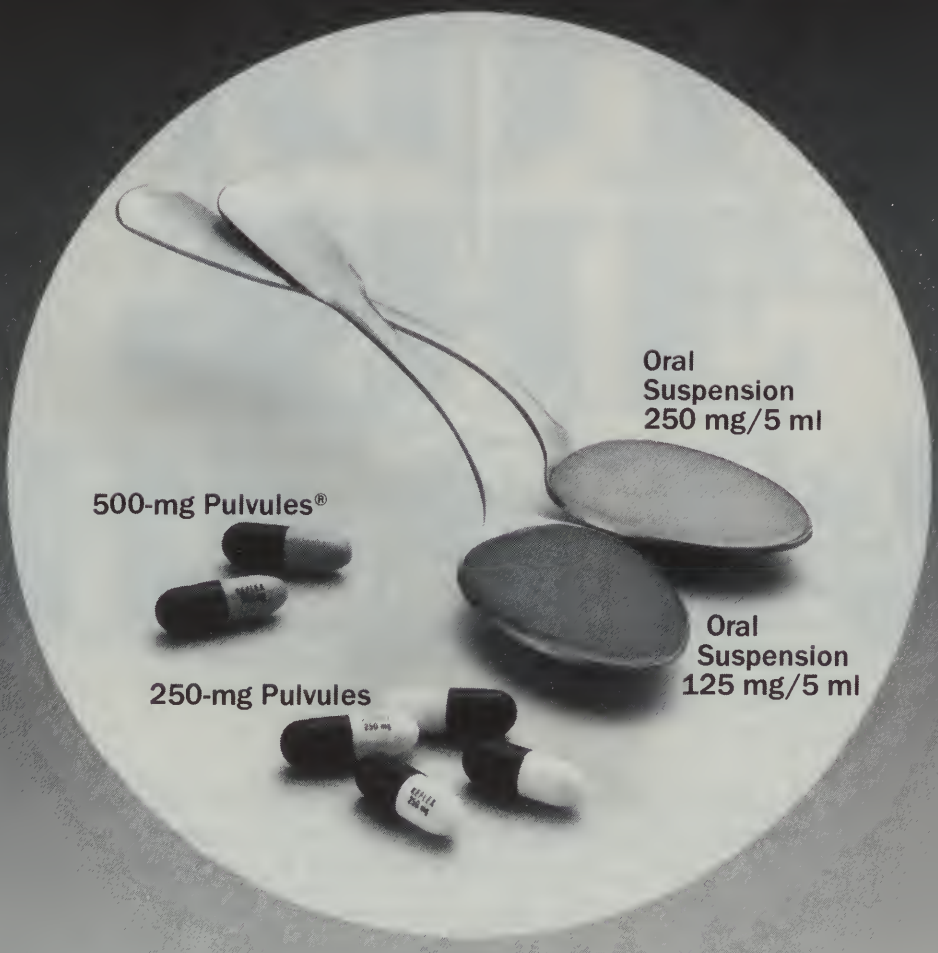
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Interprofessional Code

KENTUCKY MEDICAL ASSOCIATION AND KENTUCKY BAR ASSOCIATION

Revised October 16, 1984

PREAMBLE

General Principles

Doctors of medicine and attorneys at law, as members of two professions possessing a close personal relationship with those they serve, have established principles of ethics applicable to the traditions and requirements of their respective callings.

The physician has responsibility for the care of the individual, in health as in disease. He must minister to his patient's needs to the best of his ability and in accordance with the high precepts of the Hippocratic Oath.

The attorney is an officer of the court, sworn to support the Constitution of the United States and of the state or states in which he is admitted to practice. As is the physician, he also is pledged to maintain the confidence and to preserve inviolate the secrets of his clients. He will not reject, from any consideration personal to himself, the cause of the defenseless or oppressed, nor delay any man's cause for lucre or malice.

The attorney represents his client as advisor and confidant, as his advocate in legal proceedings and as negotiator in the business and personal affairs of his client. The physician's relationship is parallel, for he is also the advisor and confidant of his patient in matters of health.

Interprofessional Relations

Each profession is obligated by its own stature to respect and honor the calling of the other. Neither the fact nor the appearance of incompetence, corruption, dishonesty, or unethical conduct on the part of individual members of either profession can be tolerated. It follows then that each profession must vigorously support within its own ranks, as well as in the ranks of the other, those ethical concepts which each has found necessary in the public good. One who has chosen to be a physician or an attorney and has been found competent to be such by appropriate authorities, is vested with high responsibilities and privileges to enable him to serve the public with honor, with dignity, and with effectiveness.

This Code

A statement of ethical principles states a guide to the attainment of the best in interprofessional conduct and practices. IT IS NOT NECESSARILY OF A BINDING CHARACTER, NOR CAN IT BE SO DETAILED TO COVER EVERY CIRCUMSTANCE.

This Interprofessional Code constitutes the further recognition that with the great developments in the science and art of both medicine and law, it is inevitable that the physician and the attorney are drawn into steadily increasing association, as the law calls with increasing frequency upon medicine for its scientific knowledge and for its evaluation of facts so that the rights of individuals and of the government may be appropriately determined before various tribunals.

I. RECIPROCAL DUTIES

A. THE ATTENDING PHYSICIAN AND HIS PATIENT

The medical profession affirms the obligation of a patient's attending physician to cooperate willingly with the patient's attorney in supplying facts, primarily available only to him. The physician should accept the further responsibility of explaining such facts in such a manner that the attorney understands them and can determine their relationship to his client's cause. There should be complete cooperation between the physician and the attorney, each assuming his proper responsibility.

It is for the physician to determine the actuality or probability of fact pertaining to his patient's medical condition. It is for the attorney to determine how and under what circumstances such facts are to be appropriately presented.

A physician should never advise on the amount of damages a patient should seek to recover. The proper province of his professional advice is the extent, degree, or percentage of illness, injury, disability, or similar judgments based upon his professional knowledge of the case. He is not expected to understand technical rules of legal liability, or evidence, or of trial techniques. The latter are the exclusive province of the attorney.

B. THE ATTORNEY AND HIS CLIENT

It is a part of the attorney's oath on his admission to the bar of this state that he will not counsel or maintain any suit or proceeding which shall appear to him to be unjust, or any defense, except such as he believes to be honestly debatable under the law of the land. He will employ, for the purpose of maintaining the causes confided to him, such means only as are consistent with truth and honor and will never seek to mislead the judge or jury by any artifice or false statement of law or fact.

In discharge of that oath, it becomes the attorney's responsibility to marshal the facts and to obtain professional and other opinion which, in his judgment, are necessary for his client's case and in a manner consistent with his oath and the ethics of his profession.

It is important that the physician understand that legal proceedings in this country are conducted under what is known as the "adversary system." Under that system the attorney occupies a dual position. He is not alone an officer of the court. He is also the single-minded advocate for his client. He does not and cannot properly represent both sides to a dispute.

This system has developed in recognition of the truth demonstrated countless times that justice can usually be satisfactorily accomplished if the two or more contestants can present their points of view to some neutral third person who can weigh the opposing claims. Such claims are usually presented in the form of testimony which is offered in question and answer form. The judge of a court or the officer presiding before an administrative tribunal is the referee who weighs the opposing points of view and the conflicts in testimony. In a sense the judge or administrative officer much more nearly approximates the physician in objectivity. The physician well knows, however, that in some situations it is also possible for medical men to vary honestly and sincerely in their physical findings, their treatment, and their evaluation of illness or injury. In some types of court cases the parties prefer to let a group of sworn but interested citizens, the jury, weigh and "find" the facts.

II. MEDICAL EXAMINATIONS

(Requested by Attorneys or ordered by Court)

A. GENERAL

1. The law provides that a party to a lawsuit may be required to undergo a medical examination by agreement of the opposing attorneys or under a court order.

2. When an appointment is made for the medical examination of a person, the physician sets aside a part of his day for that purpose. It is, therefore, important that attorneys exert their best efforts to insure that such appointments are kept. The attorney for the party to be examined should give explicit instructions to such party that the physician must be notified in ample time should it become impossible for the party to keep the appointment.

B. SCOPE OF EXAMINATION

1. The physician may take a history and perform such examinations as may be advisable in his judgment to formulate an informed opinion regarding the nature and extent of the party's medical condition.

2. Inquiries should not be made by the physician into matters not reasonably related to the legitimate scope of the medical examination.

3. The physician, following his examination, shall reduce to writing a medical report, following the outline set forth in Section III.B.5. herein. The original report shall be forwarded to the court or person requesting the examination, with copies as directed by the court or by the person requesting the examination.

III. WRITTEN MEDICAL REPORTS

(Prepared for Courts or Attorneys)

A. THE ATTORNEY

1. Requests for reports from a physician should be made in writing as soon as it is known that the information is needed. The request should be clear as to the specific information desired and the report should be prepared by the physician as promptly as possible.

2. If a report is requested on a physician's patient, the attorney must provide the physician with a written authorization from the patient.

B. THE PHYSICIAN

1. **Medical Records.** The physician must keep records adequate to supply a patient's attorney all pertinent information regarding the patient-client's medical history.

2. Requests for medical reports should be honored promptly. Undue delays in providing medical reports of bills bearing on a patient's legal rights may prejudice his case.

3. If a physician is unable to make a complete medical evaluation within the time required, he should notify the attorney. In this event, a preliminary report clearly designated as such may serve the attorneys needs until a complete evaluation can be rendered.

4. Patient's Authorization. The physician must have his patient's written authorization before releasing any report or test concerning the patient. Such authorization is not necessary when the person examined is not a patient of the physician, and the examination is made in connection with a legal claim.

5. **Content of Report.** The following, where applicable, should be included in the report:

a. Time, date and place of first visit.

b. Accurate history of the injury or medical condition, including pre-existing disease or prior injury.

c. Nature of examination and findings.

d. Results of laboratory work, x-rays, and consultations

e. Opinion including, where possible, diagnosis and prognosis. **Upon request,** the opinion should also evaluate future physical impairment, necessity for future treatment or surgery, the effect of aggravation of any pre-existing disease or prior injury, and length of convalescence. The opinion should likewise include the physician's true opinion on the cause of the patient's condition, and the strength of his opinion in evaluating the cause. In this regard, he should consider and state all objective and subjective matters bearing on this opinion, including, where appropriate, his evaluation of the patient's candor when considered in the light of his own medical knowledge.

f. State if patient's condition is stationary, or if the patient is discharged.

g. Subsequent examination: Include complaints and evaluation of condition, nature of treatment, confinement to hospital or home, referrals to other physicians, patient's progress, results of x-rays, ECGs, EEGs, laboratory work and consultations, and a concluding diagnosis and prognosis (see Item e. above).

h. Enclose separately an itemized statement of medical expense to date. Omit charges for medical reports or attorney consultations or ANY REFERENCE TO INSURANCE.

i. Include estimate of cost of future medical care.

IV. CONFERENCES

The physician and the attorney should confer relative to the common problems presented in a particular case. Such conferences should be arranged well in advance of court or other hearing at the mutual convenience of each, in full appreciation that to each profession, time is of the utmost importance. No physician and no attorney should be required to spend unnecessary time in arranging or attending such a conference. The attorney who knows and understands the progress of his client's case, the conflict, if any, of its medical aspects, and the probability of settlement or trial should determine the necessity of a conference.

It is unfair to the patient-client, the physician, and the cause of justice to present a medical witness who has not first conferred with the attorney and who, therefore, may lack a full appreciation of the significance to the case of the particular evidence he is being asked to give. It is equally obvious that the attorney is less able to represent the full interest of his client where he has not had the advantage of full conferences with the physician in advance of presenting the case.

V. DEPOSITIONS AND/OR COURT APPEARANCE

Our system of justice depends on being able to require any citizen's time at a judicial proceeding and to give testimony regarding the case. A conference should be held between the physician and the attorney proposing to call him as a witness at some time mutually convenient before the physician is to testify.

A. COURT TESTIMONY

Both parties recognize that when it has been determined that the just and proper effect of a physician's

testimony cannot be obtained without an oral examination in court, there is a necessity for the dissemination of information to both professions concerning the time problems involved in court testimony. The Medical Association recognizes that the legal profession faces calendar problems, which include the uncertainty of dates in a fluid trial calendar. The Bar Association likewise recognizes that the physician's appointments are made in advance and that physicians are in addition faced with pressing medical problems which sometimes cannot be deferred.

1. **Attorney's Duties:**

a. The attorney should ascertain whether the physician will be available for a trial term prior to the date assigned for trial at that term. He should not order the attendance of a physician as witness unless necessary and in any case without prior notice and conference concerning the matters as to which he is to be interrogated unless both the attorney and the physician agree that such conference is unnecessary.

b. The attorney should write to the physician immediately following the docket call to advise the physician of the proposed trial date.

c. The attorney should keep the physician's office advised of the status of the docket and notify the physician as soon as possible prior to trial of the probable trial date.

d. In the event of settlement or postponement, the physician should be immediately notified of that fact.

e. The attorney should give the physician as much notice as possible of the time when his attendance in court is desired. Physicians should not be asked to appear until the attorney is reasonably certain that they will not have to remain at the courthouse more than a short period of time before being allowed to testify. When the physician enters the court room, he shall, through a court attendant, make his presence known to the attorney trying the case. The attorney shall endeavor to put the physician on the stand as soon as possible after his arrival in the court room subject to orderly and proper presentation of the case.

2. **Physician's Duties:**

a. The physician has a moral and ethical obligation to give testimony regarding his patient. If the physician undertakes the care of a patient and litigation ensues, the physician should recognize his responsibility to testify as to the medical condition of that patient, subject to the provisions of the Agreement.

b. When given adequate notice of the time when he will be called upon to testify, the physician should make himself available at that time, unless an emergency situation arises which precludes his appearance.

B. DEPOSITIONS

1. **Physician-Patient Privilege.** Where testimony is given and documents are called for by counsel during the taking of depositions in personal injury lawsuits, the usual obligation of confidence in the physician-patient relationship does not exist, and physicians shall furnish any and all pertinent documents, reports, records, notes or x-rays regarding the patient which are requested by counsel for either party to the lawsuit.

2. **Deposition Defined.** A deposition is an official proceeding authorized by law whereby a physician may be required to give testimony and be cross-examined under oath outside of court before a court reporter who is a notary public and in the presence of attorneys representing the parties. He may be requested to produce pertinent medical records at the deposition hearing. He may also be requested to release the records, x-rays, ECGs, EEGs, etc. to the notary public for duplication and return.

3. **Time and Place.** The time and place of the deposition should be set **by agreement** with the physician. Unless there is a compelling reason to the contrary, it should be taken at the physician's office **at the time agreed, keeping in mind that an attorney's time has the same value as a physician's.**

4. **Subpoenas—Medical Records.** Production of pertinent medical records may also be required by subpoena duces tecum served on the physician. That subpoena requires the physician to attend the deposition at the time and place stated in the subpoena, and there to produce the specified records.

5. **If Attendance at Deposition A Hardship.** If the time and place described in the subpoena for the deposition creates a hardship, the physician should immediately bring this fact to the attention of counsel taking the deposition.

6. **Preparation and Deportment**

a. The Physician. Since the testimony given at deposition hearings may be read at the trial, it is important that the physician prior to deposition prepare himself as for trial and that his attitude and deportment at the deposition hearing be similar to that at trial.

b. The Attorney. An attorney should totally prepare his case from the medical-legal standpoint so that with a careful use of words he can reduce the area of misunderstanding. It is not proper for an attorney to seek to color the professional opinion of the physician. No attorney is justified in abusing, badgering or browbeating any witness, including a physician.

7. **Familiarity with Records.** The physician and the attorney should be thoroughly familiar with their own records and with other related records, including hospital charts and records, at the time the deposition is taken and should have as many of the records at the time the deposition is taken as is possible so that they may be referred to as needed.

8. **Predeposition Conference.** It is to be understood that it is proper to have a predeposition conference between the attorney for the patient and the physician to facilitate the taking of the deposition.

NOTE: If court testimony or a deposition of a physician cannot be set by agreement, the physician's attendance can be required by appropriate legal process. If any doubt arises as to the effect of such legal process, the physician should consult his attorney. A physician should not take offense at being served with a subpoena in the event an agreement cannot be made.

VI. COMPENSATION FOR MEDICAL REPORTS, DEPOSITIONS, COURT APPEARANCES AND OTHER SERVICES.

It is impractical to establish precise rules governing a physician's fees for medical reports, reviewing medical records, conferences, opinions, depositions, court appearances, copies of medical records and other services. It is important, however, that fees be reasonable and that they be discussed in advance by the physician and the attorney. In this way, the major cause of misunderstanding and dissatisfaction will be eliminated. Generally, the attorney who requests these services of a physician is primarily responsible for prompt payment of the physician's reasonable fees. **Under no circumstances may a physician charge a fee for such services which is contingent upon the result of the lawsuit.**

As a matter of policy an attorney should not request a physician to testify on deposition or in court, nor should he subpoena him, without making arrangements for reasonable compensation. This is not required by law, but is suggested as a matter of fairness and cooperation between the professions. A physician should be compensated for the time spent away from his professional practice, regardless of whether he is used as a witness.

VII. COMPENSATION FOR MEDICAL TREATMENT TO THE PATIENT

A. The patient, not his attorney, is responsible for paying all bills incurred by the patient for his medical care. While bills should be sent to the attorney on the attorney's request, this does make the attorney responsible for their payment.

B. When the attorney first obtains a written authorization from his client for the release of medical information, the attorney should request his client to authorize the attorney to take out of the proceeds of any recovery

APPENDIX A

AGREEMENT TO PAY PHYSICIAN FEES

I, _____, hereby authorize and direct my attorney, _____, to pay promptly to _____, M.D., from my portion of the proceeds of any recovery which may be paid to me through my attorney as a result of the injuries sustained by me (and _____), on _____, 19____, the unpaid balance of any reasonable charges for professional services rendered by said physician and his associates on my behalf, said professional services to include those for treatment heretofore or hereafter rendered to the time of the settlement or recovery, as well as those for medical reports, consultations, depositions and court appearances on my behalf. I understand that this does not relieve me of my personal responsibility for all such charges in the event there is no recovery or if the recovery is insufficient to satisfy such charges.

DATED: _____ _____
Patient

APPROVED AND ACCEPTED:

DATED: _____ _____
Attorney

by way of settlement or verdict the funds necessary to pay the physician's then outstanding bill for medical treatment. Upon such authorization being given, the attorney should so inform the physician. Upon recovery, if any, the attorney should, in every case, seek to protect the interest of the physician and see that the physician's bill is paid. In the event there is no recovery, or the recovery is insufficient to pay the bill, the attorney should so inform the physician.

(For suggested form, see Appendix A)

VIII. IMPLEMENTATION OF THE CODE

The purpose of this Code is to establish, maintain and perpetuate a greater degree of understanding and ethics between the respective medical and legal professions. Any abuse of this Code or violations thereof by a member of either profession should be brought to the attention of the Physician-Attorney Liaison Committee for a determination to be made as expeditiously as possible.

Notice of the nature and pendency of the complaint shall be given to the person about whom the complaint is made.

IX. AMENDMENTS

This Code may be amended from time to time upon joint resolution of the respective associations represented herein.

This code was originally implemented by a joint committee of the Kentucky Bar Association and the Kentucky Medical Association in 1973.

The revised Interprofessional code was approved in 1984 by the KMA House of Delegates and the Board of Governors of the Kentucky Bar Association.

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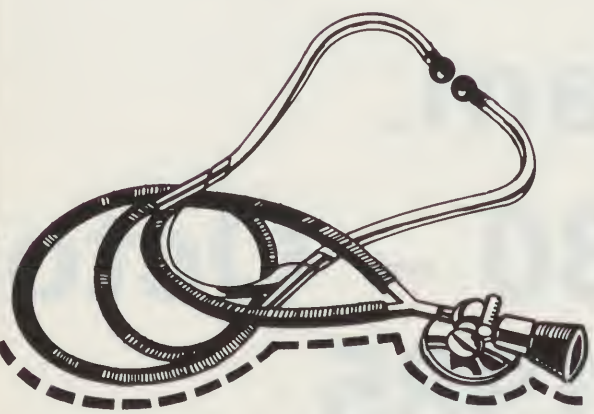
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LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

In their article "The Occurence of Delusions in the Absence of Other Psychotic Symptoms"[1] Doctors Bucholz and Pesce hope to stimulate consideration of patients with grandiose delusions alone, noting that the current third edition of the Diagnostic and Statistical Manual of The American Psychiatric Association[2] (DSM III) does not provide a diagnostic category for these patients.

Although it is true that the DSM III fails to classify such patients, this is not because these patients have been unstudied. In fact they have long been known, and have long been considered to have a paranoid disorder.

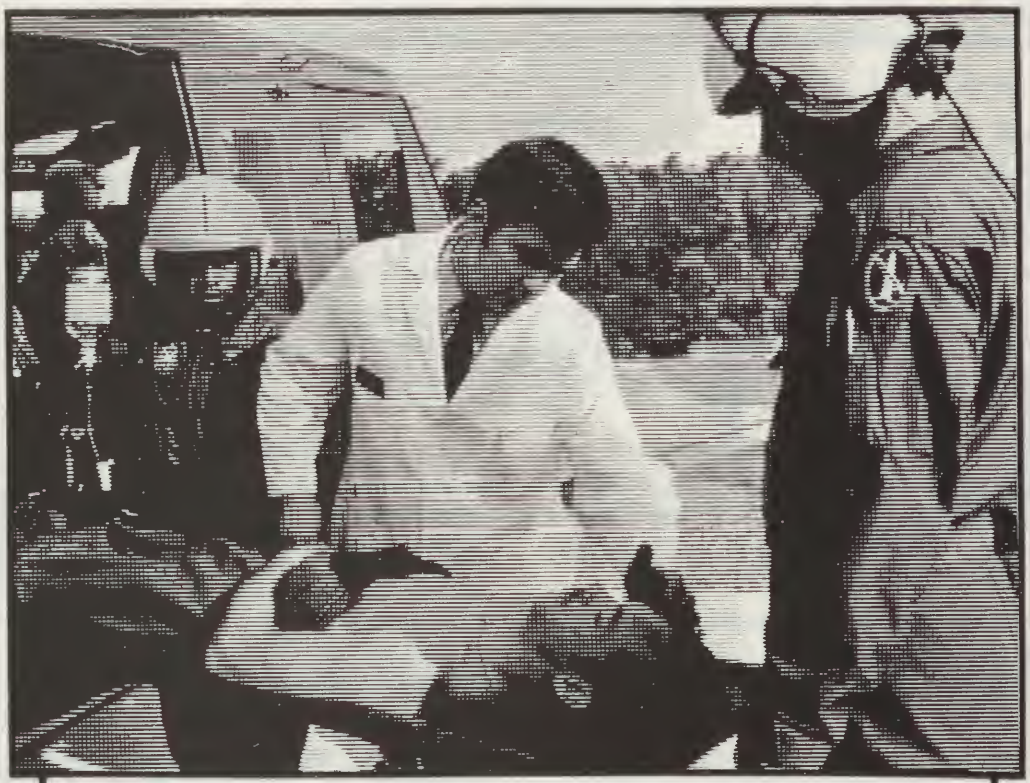
Kraepelin,[3] in the 19th century, noted that although delusions of persecution constituted the most frequent form of paranoia, that delusions of grandeur may also dominate the clinical picture. Bleuler[4] made similar observations. The first[5] and second[6] editions of the DSM also call for a diagnosis of paranoid disorder when either persecutory **or** grandiose delusions are present, and the current third edition of the Comprehensive Textbook of Psychiatry[7] provides a case summary of a patient with a paranoid disorder characterized by grandiose delusions alone.

As the editors of the current DSM state, the DSM III is "only one still frame in the ongoing process of attempting to understand mental disorders."[8] Hopefully, Doctors Bucholz and Pesce's article will stimulate the framers of the DSM IV to take advantage of the past, specifically of Kraepelin's unmatched clinical descriptions, and thus give us a greater clinical advantage in the future.

References **1.** Bucholz DJ, Pesce U: The Occurence of Delusions in the Absence of Other Psychotic Symptoms. J Ky Med Assoc *82*:559–561, 1984. **2.** Diagnostic and Statistical Manual of Mental Disorders (3rd Ed.) Washington, D.C.: American Psychiatric Association, 1980. **3.** Kraepelin E: Manic Depressive Insanity and Paranoia. New York: Arno Press, 225–245, 1976. **4.** Bleuler E: Textbook of Psychiatry. New York: Arno Press, 509–533, 1976. **5.** Diagnostic and Statistical Manual of Mental Disorders. Washington, D.C.: American Psychiatric Association, 28, 1952. **6.** Diagnostic and Statistical Manual of Mental Disorders (2nd Ed.). Washington, D.C.: American Psychiatric Association, 37, 1968. **7.** Kaplan HI, Freedman AM, Sadock BJ: Comprehensive Textbook of Psychiatry III, Volume II. Baltimore: Williams and Wilkins, 1293, 1980. **8.** Diagnostic and Statistical Manual of Mental Disorders (3rd Ed.). op. cit., 12.

David P. Moore, M.D.
Louisville, Ky

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Book Reviews

Basic and Clinical Pharmacology

Katzung BG

Second edition Lange Medical Pub. 1984

An excellent primer with enthusiastic supporters from its incipient editors, this book is fast becoming both popular and necessary for natal pharmacology students.

Basic pharmacology still is based on chemical -bio and physico- interactions and this requires some fundamental scientific background, ignorance of which is not forgiven in this book. Only the first 50 pages of this 888 page book are given to introduction of principles and basic science. Nevertheless, these sections have been refined with their revisions, are well illustrated and tabled and accessible to recurrent review.

Subsequently, the various types of pharmacologic agents are presented. Each chapter has been revised, but the flow seems uninterrupted. That the book is heralded as a complete pharmacology textbook for students in the health sciences and for health professionals is obvious. Several additional chapters have been added -Veterinary Pharmacology and Antiparasitic Chemotherapy.

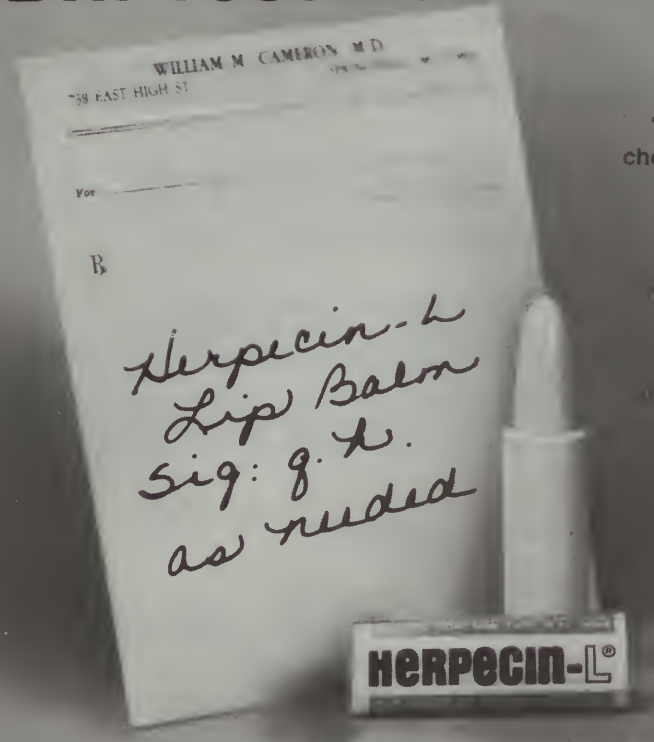
An appendix is provided with generic versus trade names, drug interactions and drug effects on lab tests, conversion tables and nomograms.

Finally an encyclopedic index makes referencing easy.

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Stephen Z. Smith, M.D.
Assistant Scientific Editor

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Members in the News



Arnold S. Relman, M.D., (right) Editor of the New England Journal of Medicine, was guest speaker of the Louisville Society of Internists, Annual John Walker Moore program. A. Evan Overstreet, M.D., President of the Society and Editor of the *Journal of the Kentucky Medical Association*, presented Doctor Relman with a gift after his presentation.

The following members of KMA have been elected as Fellows of the American College of Physicians (ACP): Martin S. Blumenreich, M.D., Louisville; Bruce Chang, M.D., Louisville; Lewis G. Dickinson, M.D., Glasgow; James E. Miller, M.D., Richmond; Stephen P. Richman, M.D., Louisville; Carlo H. Tamburro, M.D., Louisville.

Election to Fellowship in the national medical organization signifies that a physician has been recognized by colleagues as having attained a high level of scholarship and achievement in internal medicine. Usually, Fellows have authored articles in medical journals, have presented papers at medical meetings, are involved in the teaching of young doctors and medical students, and have made other notable contributions to the advancement of medical science and practice.

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MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

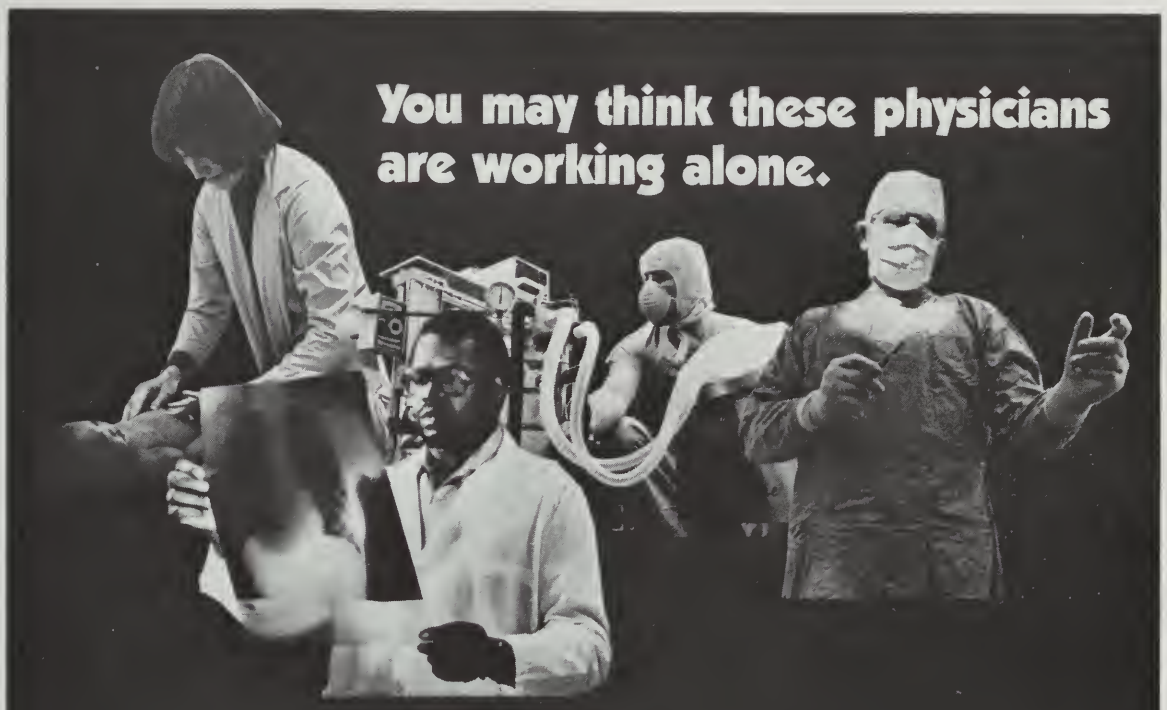
10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

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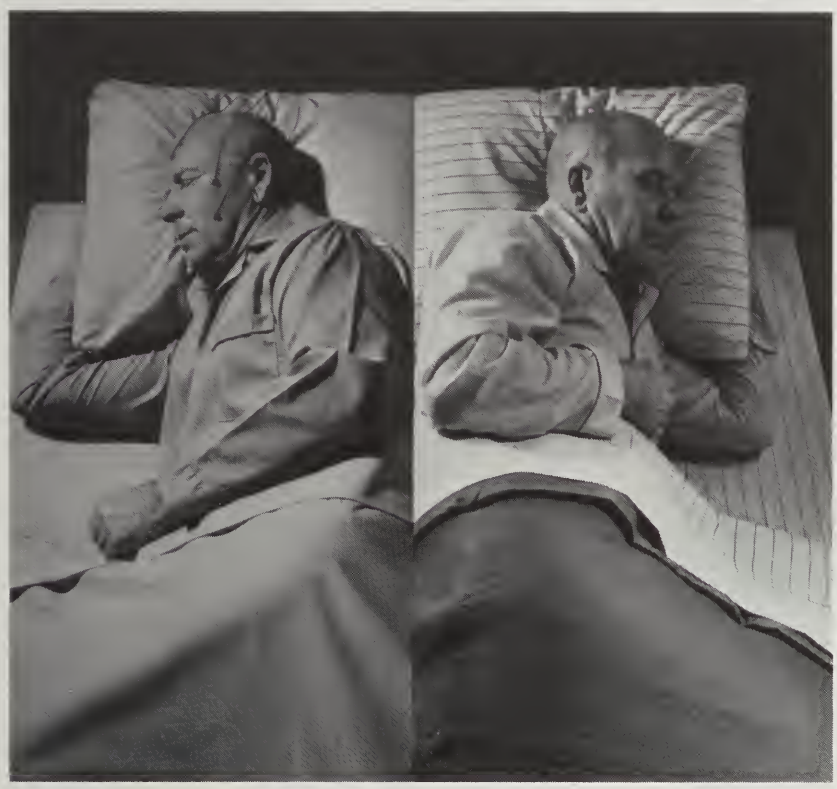
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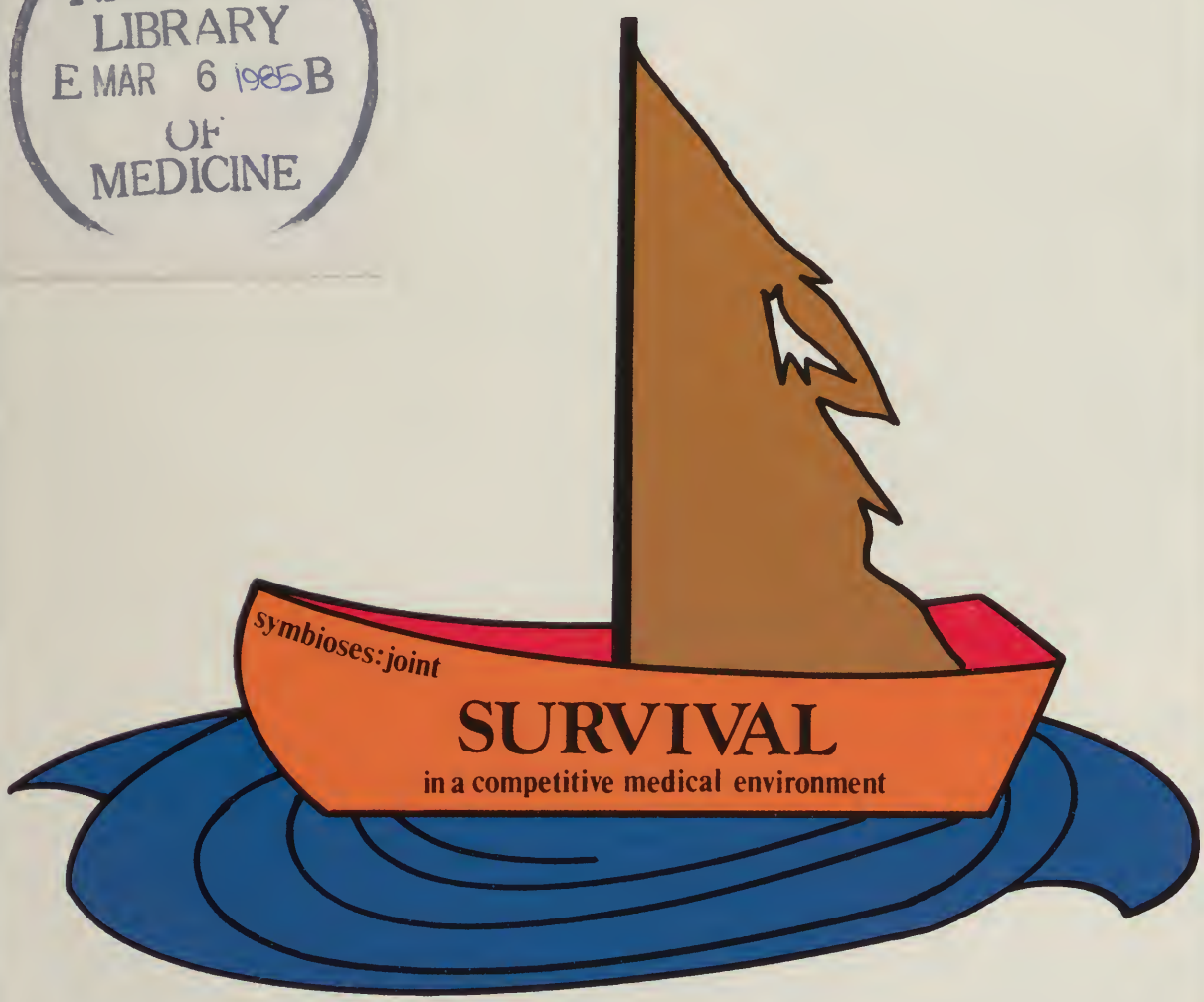
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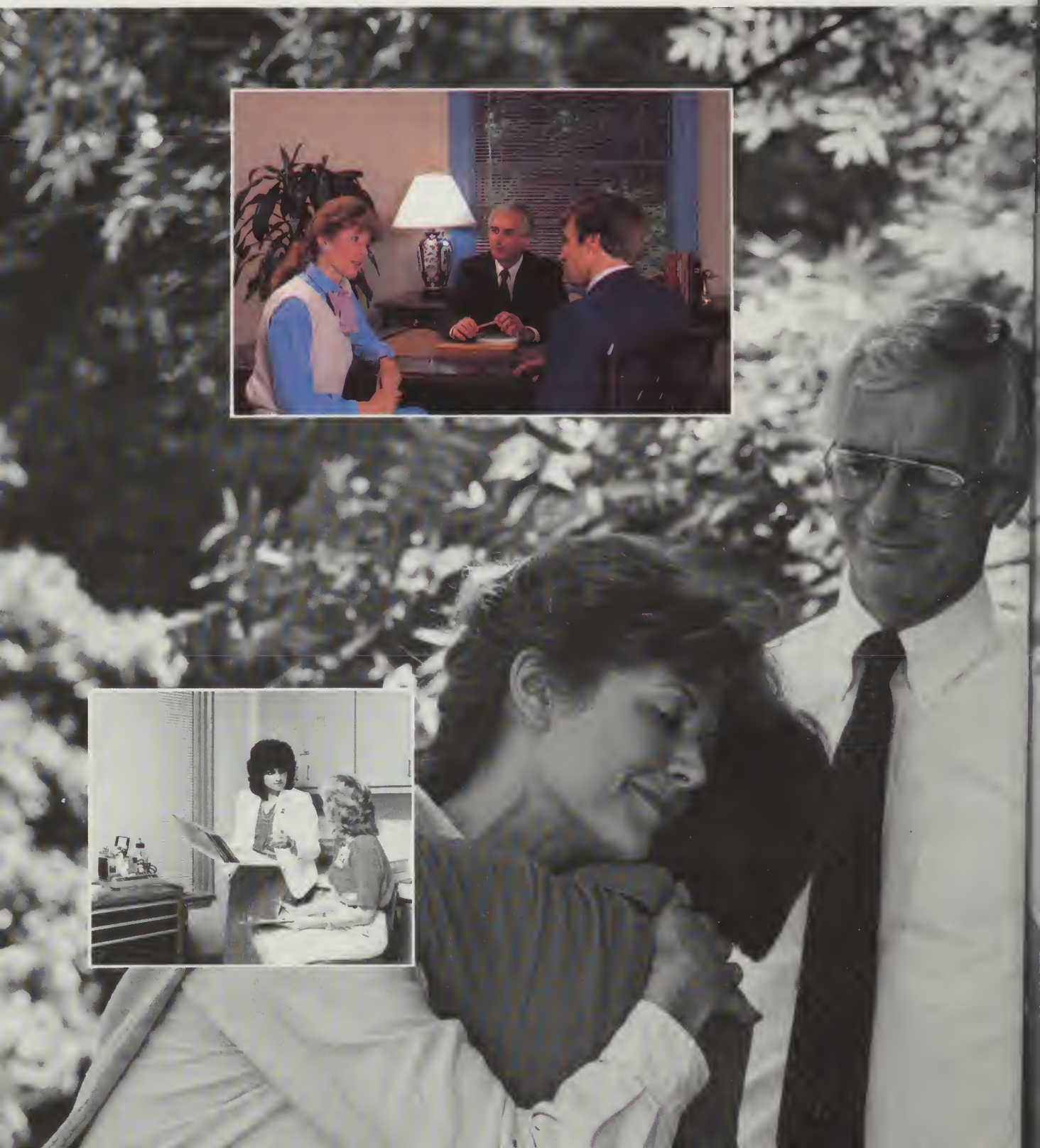


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Volume 83, Number 2 **February 1985**

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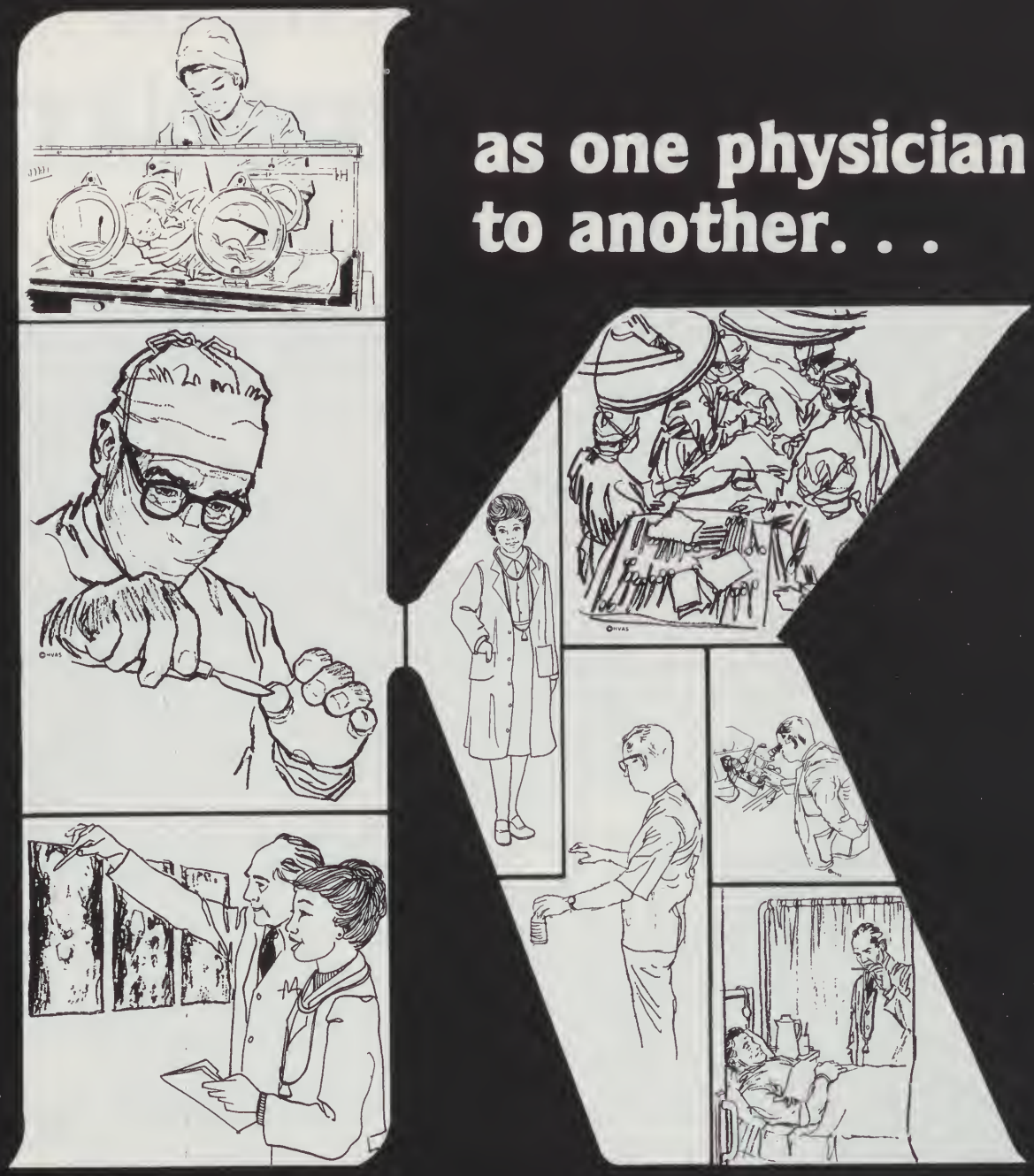
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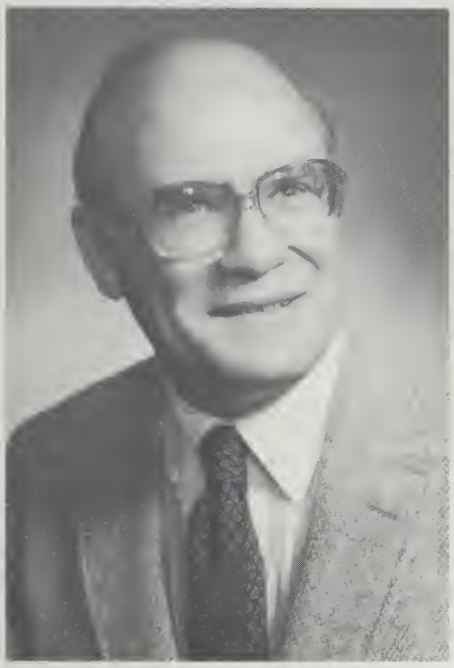
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PRESIDENT'S PAGE



It was Sir William Osler who took the teaching of medicine to the bedside and out of the amphitheater almost a century ago. Those of us who came along subsequently were then destined to learn most of our medicine in the hospital on the wards. The attendance at clinics was a necessary evil to be performed with much less emphasis on teaching and technique of outpatient medicine. As a matter of fact, those fabled emergency room rotations were the main learning experiences during our training years. Thus we were conditioned to take care of most important matters in the hospital.

During the past 50 years insurance has not only complemented this practice but even encouraged it. Several years ago, while we worked, a revolution began to occur. By the summer of 1983, it intruded into the hospital practice of medicine. We retreated into our offices, if we could, and continued to work as we always have. After all, nothing had changed a lot up until now. Sure, we have more paperwork and some phone calls to make, but new billing systems could handle the former and our secretaries the latter. But, as with most revolutions, a relentless pulsing continues with the exact nature and result not known.

For the past two years the Kentucky Medical Association has specifically attempted to monitor changing trends in the practice of medicine through the Trends Committee and to report to the membership through the House of Delegates and the *Journal*. Two years ago the post-graduate course entitled "The Turning Point" was presented in Louisville and pointed many of us in new directions perceptually. The attendance could certainly have been better but at that time most of us simply had no idea about the rapidity of change. We in Kentucky were prone to say as Mark Twain said about Cincinnati, "When the world comes to an end, I hope I'm in Cincinnati because everything gets there 10 years later."

Because of the need to further discern the nature of societal changes and how this is altering medicine and its practice, your leadership has decided to have another postgraduate program. It will be held March 15-16th, in Owensboro, at the Executive Inn. We are all aware that there is a whole group of KMA members who live in "Central Time Zone" Kentucky and that they are even-tempered folks because they can watch the 10 o'clock news and go to bed. We want to take this meeting out there to where they are, so they can more easily attend. At the same time, it will give all the rest of us an extra hour to get there. And it will give those of us in Lexington and Louisville a chance to go to a meeting out of our own cities, where we won't have to worry about making rounds and being on call. And those wonderful folks in Daviess County may have to be on call, but they get to live in a town with all that wonderful barbecue all the time.

The topic will be "Symbiosis" and the program is designed to identify how things are changing, what this means, and how we should deal with the changes. The program is printed elsewhere in the *Journal*. We have secured national speakers of identified caliber insofar as content and speaking ability are concerned.

Let us go back to my original paragraph and Sir William Osler. Most of us have been content to work hard every day and leave the details to the planners. But I think the time has arrived when we need to be informed equally as well on the systems by which care is delivered as we are on the scientific aspects of the care itself. What will it profit us if we know, if we cannot do?

Osler once said, "The quest for righteousness is Oriental, the quest for knowledge, Occidental." Let us pursue the aims of both those great civilizations he so well characterized.

Charles C. Smith, Jr.
KMA President

**The President's Page in the January issue of the* Journal *inadvertently named Wally O. Montgomery, M.D., as KMA Vice President. Doctor Montgomery is KMA President-Elect for 1984–85.*

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

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4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

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8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

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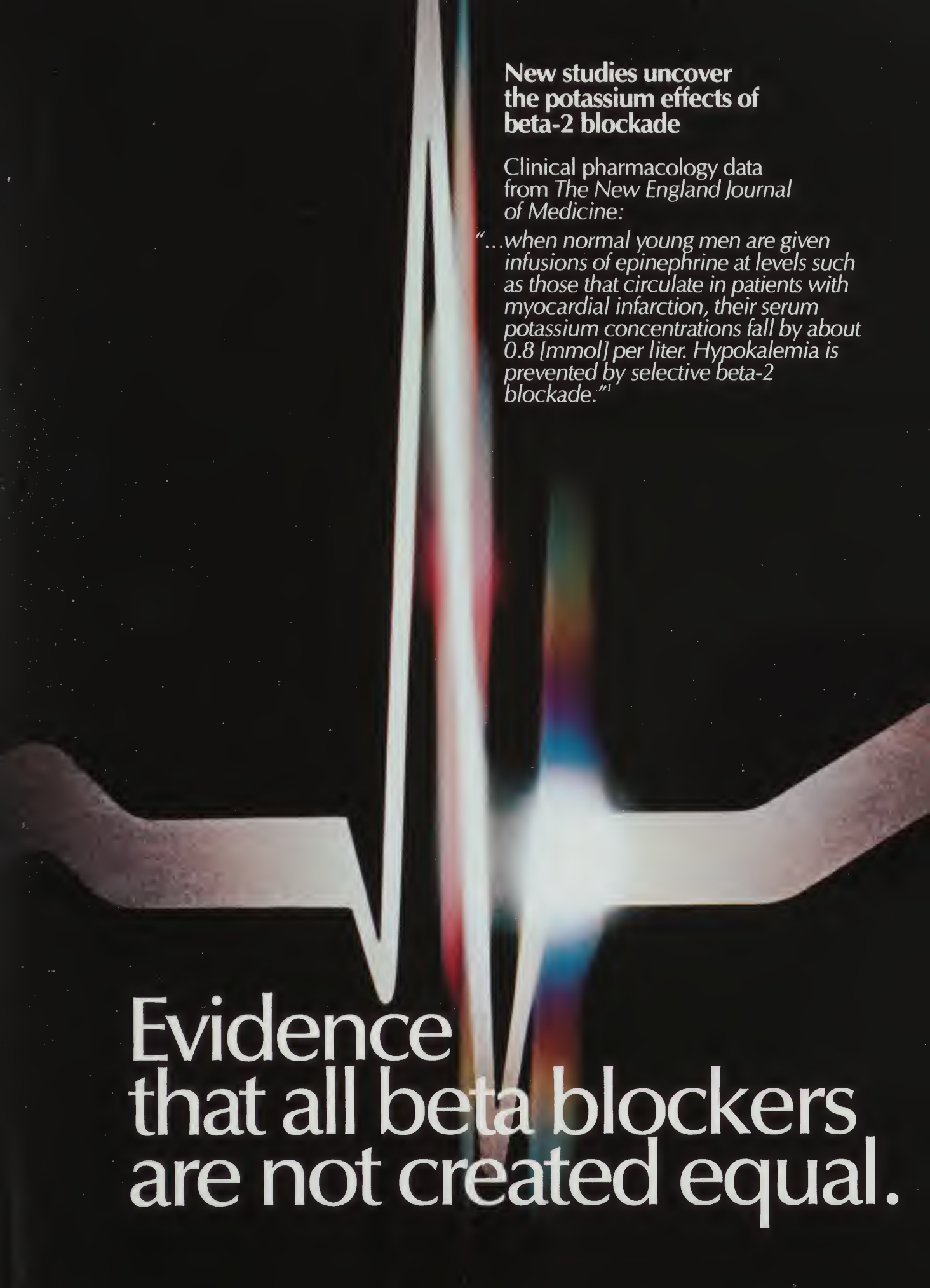
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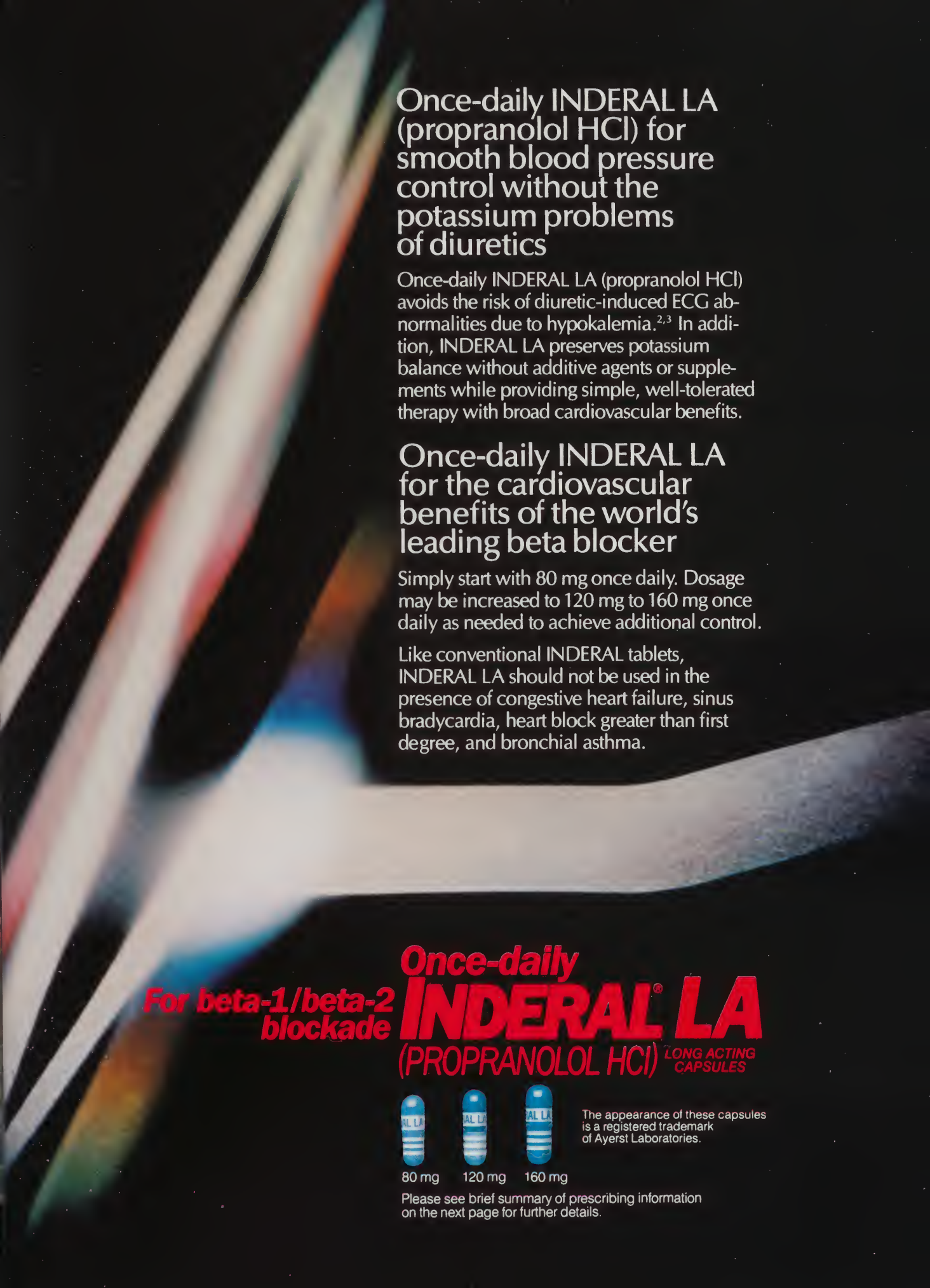
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New studies uncover the potassium effects of beta-2 blockade
Clinical pharmacology data from The New England Journal of Medicine:
"...when normal young men are given infusions of epinephrine at levels such as those that circulate in patients with myocardial infarction, their serum potassium concentrations fall by about 0.8 [mmol] per liter. Hypokalemia is prevented by selective beta-2 blockade."[1]
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For beta-1/beta-2 blockade

Once-daily

INDERAL® LA

(PROPRANOLOL HCl) LONG ACTING CAPSULES

80 mg 120 mg 160 mg

The appearance of these capsules is a registered trademark of Ayerst Laboratories.

Please see brief summary of prescribing information on the next page for further details.

Once-daily For beta-1/beta-2 blockade INDERAL® LA (PROPRANOLOL HCl) LONG ACTING CAPSULES



The appearance of these capsules is a registered trademark of Ayerst Laboratories.

BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)*

INDERAL® LA brand of propranolol hydrochloride **(Long Acting Capsules)**

DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

CLINICAL PHARMACOLOGY. INDERAL is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by INDERAL, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with INDERAL LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of INDERAL tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

INDERAL LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of INDERAL has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. INDERAL has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, INDERAL also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

INDICATIONS AND USAGE. Hypertension: INDERAL LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS. CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS. *General:* Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy: Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: INDERAL is excreted in human milk. Caution should be exercised when INDERAL is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL tablets to INDERAL LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg for mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—*Dosage must be individualized.* The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—*Dosage must be individualized.* Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—*Dosage must be individualized.* The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg INDERAL LA once daily

PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

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Hospital Admissions for Pneumonia A Kentucky Peer Review Organization Study

Samuel R. Scott, M.D.

The Kentucky Peer Review Organization (KPRO) through retrospective review evaluated hospital admissions for pneumonia where this problem was noted as the primary discharge diagnosis. This study was chosen because of the large number of cases occurring annually.[1] Only those cases coded for bacterial pneumonia were evaluated. A diagnosis of viral pneumonia should have been excluded, but medical record coding errors might have occurred.

The study was statewide with 62 hospitals participating. Thirty-nine were non-delegated and 23 were delegated for quality assurance. The total number of patients studied was 1,492 with an average age of 63. Five hundred ninety-five physicians admitted these patients.

Methods

Audit Criteria were developed with major emphasis on:

1. Justification of diagnosis
2. Justification of admission
3. Diagnostic evaluation
4. Management
5. Complications

Results

Justification of Diagnosis

Eighty-seven percent had a chest x-ray which confirmed the diagnosis. Included in this number are those patients who had outpatient x-rays which the attending physician documented in the medical record or the actual report was present. Thirteen percent of patients did not have a chest x-ray documented in the medical record, either by lack of an order or absence of the report.

Justification of Admission

There were 39 patients (2.7%) in which no documented reason for admission was found.

Diagnostic Evaluation

A sputum culture was obtained in 65% of the patients, but only 35% had a gram stain of the sputum. Twenty-three percent were evaluated with blood culture.

Management

The sole management criterion was appropriate antibiotic therapy based on bacteriologic sensitivities. Only forty-one percent were determined to have received appropriate therapy.

Complications

Complications were found in 28% and of these patients 25% were noted to have multiple complications. These percentages appear somewhat high and probably reflect the method of data collection in which secondary diagnoses may have been listed as complications. Audit criteria for complications included empyema, lung abscess, atelectasis, mortality, and "other." Most complications fell into the latter category and were other complicating illnesses and not complications of the primary disease, pneumonia. The most common complication reported was atelectasis followed by congestive heart failure, urinary tract infection and chronic obstructive pulmonary disease.

Mortality

Of the 1,492 patients reviewed, 105 died reflecting a 7% mortality rate.

Length of Stay (LOS)

The average length of stay was 8.2 days. Patients with complications averaged 11.9 days and those without complications 6.5 days. There were 137 patients (9%) who stayed less than four days, and in these patients 74% were discharged without further antibiotic therapy and 24% did not have a chest x-ray which confirmed pneumonia.

Documentation

Only 7% of patients had no documented evidence in the medical record of improvement of admitting symptoms. Plans for follow-up at discharge were not documented in 5%.

Discussion

Pneumonia continues to be a common reason precipitating hospital admission. It further remains one of the top leading causes of death, and certainly leads all other infectious diseases in this respect.[2]

This study attempted to look at several aspects of this disease in a broad fashion to gain some overall perspective of Kentucky physicians' approach to diagnosis and therapy.

One can presume that almost all cases were community acquired based on the data gathering methodology.

The data obtained point to some problems that with improvement can lead to enhanced quality of care.

It would seem prudent that all patients admitted to the hospital with a presumptive diagnosis of pneumonia have a chest x-ray performed. This along with the physical exam would increase the clinician's diagnostic accuracy regarding the diagnosis.[2]

The microscopic examination and culture of a well collected sputum specimen remain central to the etiologic diagnosis of pneumonia.[3] A blood culture can be extremely helpful in the severely ill. Twenty percent of patients with pneumococcal pneumonia become bacteremic. Mortality rates in pneumococcal bacteremic patients range from 17% to 28% depending on the age of the patient and the presence of chronic systemic illness.[4]

While culture and sensitivity testing require 24 to 48 hours for definitive information, the clinical setting coupled with the chest x-ray and gram stain usually enable the physician to make a presumptive diagnosis and initiate therapy. Some studies[5,6] have suggested that *Streptococcus pneumoniae* can only be isolated in the sputum up to 50% of cases of proven pneumococcal pneumonia, but Thorsteinsson, *et al*[7] in a prospective study demonstrated that with proper collection and culture technique virtually all patients with pneumococcal pneumonia can be diagnosed by sputum culture. On the basis of culture results, initial antibiotic therapy can be altered as the clinical course dictates. These clinical decisions can improve the cost-effectiveness of antibiotic therapy.

Complications are inevitable in disease treatment. This study sheds little light into the complication rate of pneumonia because of the built-in error of data collection in this category.

Regarding length of stay, more severely ill patients remain in the hospital longer. In the patients who stayed less than four days, the diagnosis of pneumonia remains very much in question because no antibiotic therapy was continued in 74% and 24% did not have a chest x-ray to confirm the presence of an infiltrate. Perhaps these patients had bronchitis or viral pneumonia. One could question the necessity of admission of these patients.

In summary, this study attempts to provide the data for problem areas in the diagnosis and treatment of pneumonia. Proper diagnostic evaluation can provide more appropriate therapeutic intervention.

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Tuberculosis of the Female Genital Tract

Albert G. Goldin, M.D. and William T. Baker, M.D.

Tuberculosis, which was once a major public health problem has in recent years become almost a rarity. In Kentucky in 1983, less than 500 cases were reported.

As a result of the declining incidence of this disease, thanks to public health measures and specific antibiotics, the practicing physician does not often seriously consider tuberculosis in his differential diagnosis. When confronted with extrapulmonary complaints and/or physical findings, the consideration of tuberculosis may be even less likely.

This report consists of an unusual case presentation to illustrate the fact that indeed tuberculosis still exists and may be a cause of genital tract as well as pulmonary pathology.

Case Report

A 56-year-old black woman was admitted to the Methodist Evangelical Hospital with complaints of intermittent claudication, involving her left leg, of several months duration. She had previously been treated for hypertension with propranolol and thiazides with a good response. Despite a good appetite she had lost approximately 30 pounds in the past two years. There were no digestive tract symptoms to account for this weight loss.

She smoked one pack of cigarettes per day. She complained of mild shortness of breath and occasional chest pain with walking one or two blocks in addition to the cramping pain in the calf muscles of her left leg.

The blood pressure was 190/80. The lungs were clear to auscultation. The heart tones were normal. The abdominal examination was negative. The right femoral pulse was palpable but none of the other pulses in the lower extremities could be felt.

The chest x-ray showed a slight increase in fibrotic markings in the left upper lung field area but was clear otherwise. The heart appeared normal in size and configuration.

The chemical profile was not remarkable. The electrocardiogram was consistent with an old anteroseptal infarction.

An arteriogram of the aortic, iliac and femoral systems demonstrated severe atherosclerotic changes most marked in the left external iliac, the abdominal aorta and the superficial femoral vessels. A 30% stenosis of the right renal artery was also noted.

Vascular surgery was planned and prior to surgery, a gynecologic consultation was obtained. She was a nulligravida who had had regular menses between ages 16-26 and then had no further vaginal bleeding of any kind. She has been sexually active but never conceived and never used contraception. There were no symptoms suggesting pelvic inflammatory disease. She had never had a pelvic examination previously.

Speculum examination revealed an atrophic vulva and vagina with a small ulcer of the anterior vaginal wall. The cervical mucosa bled easily when the pap smear was done. The bimanual examination revealed no masses but the structures were somewhat "fixed" and mobility was decreased. The pap smear was reported as "inflammatory atypia."

She had a D & C and biopsies of the cervix and vaginal ulcer, immediately prior to the left iliac artery bypass grafting. At operation, several suspicious retroperitoneal (common iliac, periaortic) nodes were removed.

Granulomatous inflammation and acid-fast bacilli were found on histologic evaluation of all the tissues submitted. Also vaginal cultures yielded mycobacterium tuberculosis.

The surgical bypass procedure of the obstructed vessel was accomplished without complication and the postoperative course was uneventful.

She was treated with a regimen of isoniazid,300 mgm daily and rifamin,600 mgm daily, which she continued to take for nine months. The medications were well tolerated.

Discussion

A review of the recent literature reveals that genital tract tuberculosis is not unknown in the United States, but it is rather rare. Many cases in the United States have involved immigrants, however our patient was a

native Kentuckian. In underdeveloped countries, it is a prevalent cause of infertility.[1]

Sutherland[2] reports that more patients over age 40 are now being diagnosed than previously, though most patients are in the fertile ages.

Falk, *et al*[3] point out that many cases were asymptomatic (11%) and were discovered during investigation for other diseases. Menorrhagia, pain, and infertility were the most common symptoms.

Bazaz-Malik[4] from India, reported that infertility was present in 47% and amenorrhea in 26% of their series of 1000 cases of tuberculous endometritis.

Our patient is consistent with these reports in that her diagnosis was uncovered while evaluating another disease process and that she reported infertility and amenorrhea since age 26. It is interesting to speculate whether this was due to tuberculosis of 30 years duration.

The cause of the amenorrhea is not well understood. However the endometrium is commonly involved, making endometrial biopsy an important method of obtaining tissue for diagnosis.

In an extensive review of the subject of infectious salpingitis Mardh[5] states that in pelvic tuberculosis, or tuberculous peritonitis, the tubes are almost invariably involved. Pulmonary tuberculosis is usually present and hematologic spread is thought to be the manner of dissemination. Sexual transmission is not thought to be involved although theoretically a woman could be infected by a man with tuberculous epididymitis.

Marszalek[6] reporting 95 cases of genitourinay tuberculosis, found endometrial involvement in eight and adenexal involvement in 11 patients. The remainder involved the urinary tract structures.

Conclusion

Tuberculosis, both pulmonary and extrapulmonary, though infrequent, is still a continuing cause of morbidity. As world travel increases and immigration from underdeveloped countries continues, it may require consideration more often.

Chemotherapy with isoniazid, ethambutol and/or rifampin remain the treatment of choice although surgery has a place in diagnostic procedures and in differentiating masses suspected of being neoplastic. Tuberculosis should be added to the differential diagnostic considerations in cases of infertility and amenorrhea.

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From the Departments of Medicine and Departments of Obstetrics and Gynecology, Methodist Evangelical Hospital, Louisville, Ky.

North American Blastomycosis
A Review

Robert G. Drake, Jr., M.D.

A total of six cases of blastomycosis was diagnosed at Trover Clinic-Regional Medical Center in Madisonville, Kentucky over a two-year period and three are reviewed in detail to emphasize the variety of presentations. Included is a classic presentation with lympho-hematogenous dissemination involving the skin, bone and male genitourinary tract. All cases were definitively diagnosed by isolation of the organism on culture. These cases illustrate the fact that blastomycosis is not an infrequent infection and should be considered in the differential of pulmonary disease. The literature is briefly reviewed and treatment with ketaconazole as an alternative to amphotericin B is discussed.

Blastomycosis is a systemic fungal disease that may present with a variety of clinical manifestations from a fatal illness to an asymptomatic pulmonary infection. A patient may present with pleuritic chest pain, chills, fever, a productive cough, weight loss, hoarseness, genitourinary complaints, skin lesions or hemoptysis. The disease may mimic tuberculosis, carcinoma, or pneumonia. Our recent experience with six cases prompted this report.

Case presentation #1

A 72-year-old white male nursing home patient was referred to Regional Medical Center with a history of rash for two weeks and skin culture with a preliminary reading of *Staphylococcus*. Nursing home regulations required isolation which was not available at the nursing home necessitating hospital admission. The skin lesions had been treated with ampicillin for 10 days followed by 10 days treatment with minocycline for epididymitis.

The skin lesions were non-urticarial and consisted of several large, oval, crusted lesions with an irregular border. The central area of some lesions was smooth and glistening. Lesions were present on the philtrum, the antihelix of the right ear, the right antecubital area and two separate lesions on the flexor surface of the right forearm (Figure I).

Significant physical findings were temperature of 100 degrees, bi-basilar rales, an enlarged tender right testes and epididymis, and tenderness to palpation of the right anterior tibial area with localized erythema.

Laboratory examination revealed WBC 11,000 with a differential of 58 segs, nine bands, 19 lymphs, three monos, four eosinophils and seven atypical lymphs. The hemoglobin was 11.9 and hematocrit 37% with normocytic-normochromic indices. The urinalysis revealed pyuria. All other values including metabolic profile, liver function tests and renal function tests were normal. The chest x-ray showed a moderate reticulonodular coarsening of lung markings and x-ray of the right tibia revealed significant periosteal reaction.

Skin testing for tuberculosis was negative as was the urine for AFB and TB culture. Blood cultures, sputum cytology, and sputum smears were all negative. Final reading on the initial skin cultures was coagulase negative *Staph.*

The patient was seen in consultation by Urology and Orthopaedics and a punch biopsy was obtained from the antecubital skin lesion. The patient underwent right orchiectomy and simultaneous incision and drainage of the right tibia with purulent material submitted for cytology and culture. Preliminary diagnosis revealed a broad-based, double contoured wall morphology consistent with *Blastomyces dermatitidis*. Similar organisms were found in the right testes and epididymis with suppurative and granulomatous changes and also in the skin biopsy. All three areas grew *Blastomyces dermatitidis* on Sabourads agar with chloramphenicol and cyclohexamide.

The patient had worked as an ordinance clerk at a military base and was not an outdoorsman. Initial treatment was begun with oral ketaconazole 400 mg. a day. Ten days later amphotericin B was begun and ketaconazole discontinued after a pathologic fracture developed at the site of prior biopsy of the anterior tibia at mid-





Fig. I: Photographs from case presentation #1 with blastomycotic lesions on the philtrum (A), the antihelix of the ear (B) and the forearm (C). Photographed by Dr. Karl G. Heine, Department of Dermatology.

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shaft. A Hickman subclavian cathetor was placed for intravenous administration of amphotericin B. A cumulative dose of 750 mg. of amphotericin B has been given with improvement of skin lesions and healing of the tibial fracture. He has had no complications and continues to receive amphotericin B at a nursing home.

Case Presentation #2

A 35-year-old secretary presented with a nonproductive cough and pleuritic chest pain with no complaints of fever, chills, hemoptysis or prior serious illnesses. She had a two-pack per day smoking history and was an outdoor enthusiast who enjoyed camping. A chest x-ray revealed a left upper lobe lesion. Further lab evaluation revealed a normochromic-normocytic anemia with a hemoglobin 11.1 and hematocrit 32.7%, WBC 9,100 with a normal differential. TB skin testing and sputum for AFB were negative. The urinalysis and metabolic profile were normal. Bronchial brushings obtained on bronchoscopy and sputum samples showed no evidence of malignancy.

The patient was treated with amoxicillin and observed for one month. Follow up chest x-ray revealed the lesion to be increasing in size and the patient was admitted for further evaluation. No additional symptoms had occurred. After bronchoscopy and mediastinoscopy failed to obtain diagnostic tissue a left thoracotomy and left upper lobectomy were performed. Pathology reported extensive granulomatosis with abscess formation and special staining revealed organisms consistent with *Blastomyces dermatitidis* which was subsequently grown on fungal culture. The patient received a cumulative dose of two grams of amphotericin B postoperatively without complications and resolution of the lung lesion.

Case Presentation #3

A 63-year-old retired coal miner presented with a chief complaint of hoarseness for three months. He was a two-pack per day smoker with a history of COPD. He was an outdoorsman who enjoyed fishing. Indirect laryngoscopy revealed an extensive vocal cord lesion suspicious for malignancy. The urinalysis revealed 10-15 WBC/HPF but the remainder of the lab work including CBC, metabolic profile, and chest x-ray was normal. A direct laryngoscopy was performed and multiple biopsies revealed yeast-like organisms consistent with blastomycosis and granulomatous laryngitis. Fungal cultures were not obtained prior to discharge. Because a definitive diagnosis had not been made, the patient was rehospitalized three weeks later for further evaluation. Chest x-ray at that time revealed a diffuse micronodular coarsening in the mid and upper lungs and the urinal-



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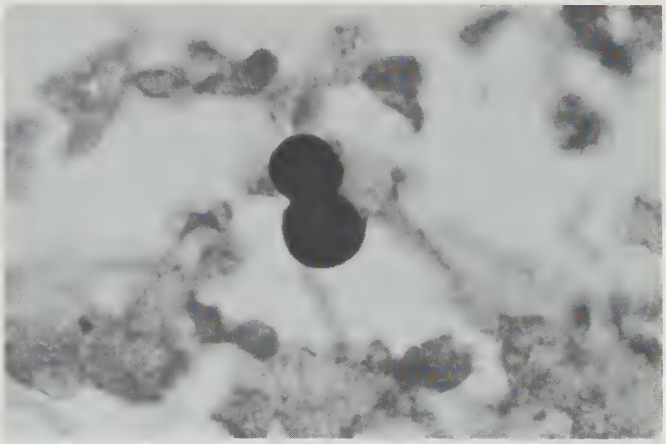


Fig. II: Photomicrograph from the epididymis with special stain for fungus confirming fungal organisms present with characteristic broad-based budding of *Blastomyces dermatitidis*. (Gomori's methenamine silver, original magnification 1000x). Photomicrograph by Dr. John Wilhelmus, Dept. of Pathology.

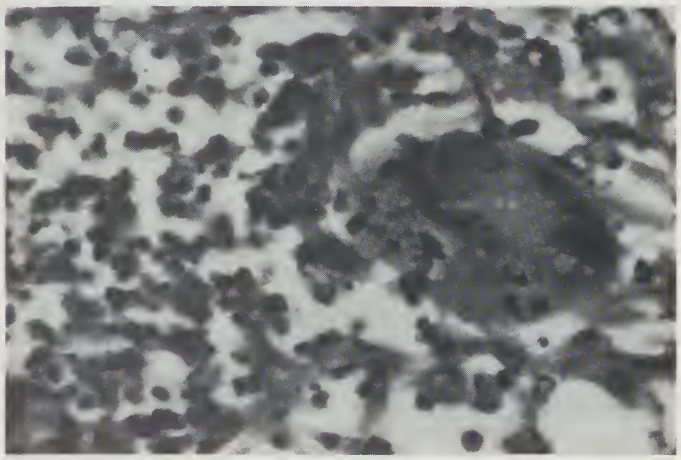


Fig. III: Photomicrograph from the epididymis containing suppurative and granulomatous inflammation. The giant cell contains ill-defined circular bodies suspicious for but not diagnostic of a fungal organism. (Hematoxylin-eosin, original magnification 400x). Photomicrograph by Dr. John Wilhelmus.

ysis had too numerous to count WBC/HPF. Bacterial culture on the urine showed no growth. The patient again underwent micro-direct laryngoscopy and biopsy of the larynx under general anesthesia. Budding yeast consistent with *Blastomyces* was noted. Postoperatively the patient developed urinary retention and subsequently a transurethral prostatectomy was performed. Special stains on the prostate chips revealed organisms consistent with *Blastomyces* and fungal cultures were positive for *Blastomyces dermatitidis*. A successful course of two grams of amphotericin B was completed and the patient remained stable on bronchodilator therapy for his COPD.

One year after hospital discharge the patient developed fever, chills, and profound dyspnea necessitating hospitalization. Chest x-ray revealed extensive infiltration of both lungs and arterial blood gases revealed severe hypoxia. Cold agglutinins, and induced sputum for AFB smear and fungal stains were negative. Reexamination of the larynx showed no evidence of blastomycosis. The patient was initially treated with erythromycin for suspected Legionnaires disease until sputum fungal cultures confirmed *Blastomyces dermatitidis*. The patient initially received ketaconazole for eight days but because of persistent fever and no clearing of the pulmonary infiltrates amphotericin B was reinstituted. He rapidly became afebrile with gradual clearing of his chest x-ray and was discharged on home oxygen and bronchodilators. The patient received a total of two grams of amphotericin B on retreatment with progressive and gradual improvement.

The other cases included (1) a farmer and retired oil field worker who developed blastomycosis prior to suc-

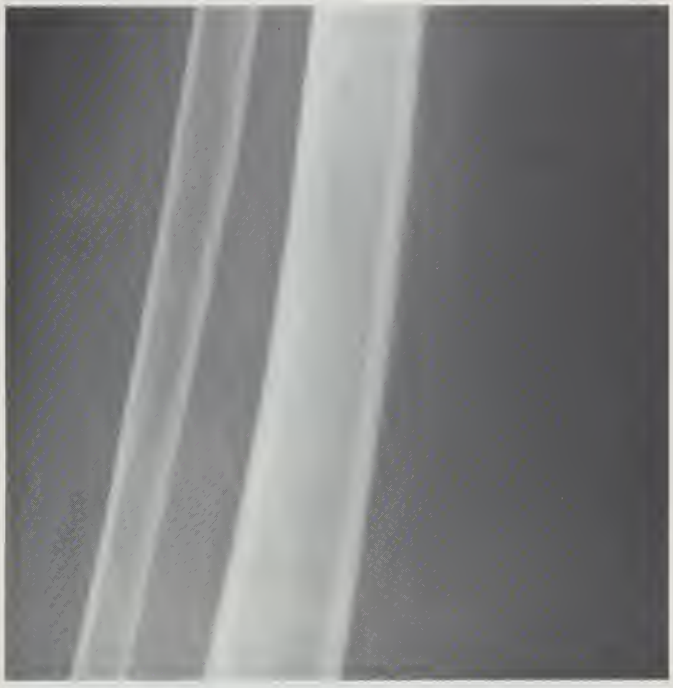


Fig. IV: X-ray of the right leg of case presentation # 1 shows periosteal reaction along the medial aspect of the mid tibial diaphysis. This pattern is consistent with an inflammatory process such as Blastomycosis.



Fig. V: A frontal view of the chest of case presentation # 2 shows a mass in the left apex. This lesion may represent either neoplastic or inflammatory process. The lungs are otherwise clear.

cumbing to complications of oat cell carcinoma, (2) an alcoholic with a long history of malnutrition diagnosed after an abnormal chest x-ray was noted, and (3) a fisherman who developed skin lesions consistent with blastomycosis and subsequently developed olecranon bursitis and adrenal insufficiency one year later from blastomycosis.

Discussion

In 1894, T. C. Gilchrist, a pathologist at Johns Hopkins reported the first case of blastomycosis and this was described in 1894 at the meeting of the American Dermatologic Association.[1] Between 1900 and 1920 a number of cases were reported in the Chicago area and the illness became known colloquially as "Chicago disease." A mortality of 92% was reported and the fungus was isolated in rotting dwellings and tenements in the Chicago area.[1] In 1951 Schwarz demonstrated the majority of cases were due to a primary pulmonary focus, and in 1956 amphotericin B was introduced for the treatment of blastomycosis.[2]

The most frequent presenting symptom is skin involvement (38-80%) which begins as subcutaneous nodules that heal centrally. The genitourinary tract is involved in 20% of cases, most commonly the prostate and epididymus. No other fungus has this predilection. Bone involvement is noted in 25-60% of cases and most commonly involves vertebrae and long bones. The central nervous system may be involved.

An occupational predilection has been reported in patients with exposure to the soil *ie* farming, construction, carpentry and foundry work.[3] The disease occurs in hunters, particularly those with bird dogs.[4] The true habitat and transmission of the organism is unknown. Large studies of cases have been reported in Mississippi, Missouri, and the 'Ohio River basin' States. The organism has been occasionally but inconsistently isolated from the soil. Patients need not be isolated and man-man transmission by the aerial route is unknown. Venereal transmission, direct skin innoculation in the lab, and transmission via bite of an infected dog have all been reported.[5]

The organism is dimorphic with a yeast stage in mammals (or at 37 degrees C.) and a mycelial stage at room temperature. The yeast stage has a "snow man" appearance (Figure II) while the mycelial form has a "dumbbell" shape. The lesions typically are mixed granulomatous and suppurative (Figure III) and may be confused with sarcoid. Although culture is the only diagnostic proof of the organism, identification of the organisms from a lesion is suggestive of the diagnosis.



Fig. VI: Frontal and lateral views of the chest of patient # 3 reveal a disseminated nodular pattern throughout the lung fields. This nodular pattern is consistent with the known diagnosis of pulmonary blastomycosis.

Great variability is seen in the natural course of the disease with progression of the disease in many and spontaneous remission in others. Treatment may include amphotericin B to an optimal dose of two grams, usually given intravenously in 50 mg. divided doses. Oral absorption is poor necessitating intravenous administration.[6] Side effects can be minimized by premedicating the patient with 50 mg. diphenhydramine, 10 grains of aspirin and adding 25 mg. of heparin to each infusion. Some clinicians recommend adding 20 mg. hydrocortisone to the infusion but the benefits are not clearly demonstrated.[7] Amphotericin B exerts its effect by binding to fungal cell membranes, increasing permeability of the membrane and adversely influencing cell function and survival. Side effects may include hypokalemia, chills, azotemia, thrombophlebitis, and a self limited anemia.

Recently the FDA has approved ketaconazole (Nizoral [R]) for the treatment of blastomycosis. Studies are ongoing and limited but oral doses of 400-800 mg. a day have shown a good response rate though many patients have relapsed following cessation of therapy. The



Fig. VI

drug is metabolized by the liver and exhibits fungistatic activity possibly by affecting membrane permeability.[8] Nausea is the most common side effect but hepatocellular dysfunction and hypertriglyceridemia may occur very infrequently and generally are reversible with cessation of therapy.[9] Gynecomastia has also been reported. Treatment may be necessary for six months but further studies are needed to determine optimal dose, appropriate duration of treatment, efficacy and toxicity. Ketaconazole may not be as effective in treating bone involvement with blastomycosis and CSF penetration is poor.

These six cases were from various locations in the Pennyroyal Region of Western Kentucky but were all within the Ohio River basin. The individuals had no direct associations with each other but five had considerable outdoor activities or occupations. All were moderate to heavy smokers. Their presentations; two with skin lesions, three with primary pulmonary manifestations and one with hoarseness were similar to those reported in larger studies. All patients with the exception of the patient with oat cell carcinoma were treated with amphotericin B including the patient who relapsed then responded to a second two gram course. Ketaconacole was initially tried in two patients but their failure to respond after a brief course of therapy and the seriousness of their illnesses necessitated therapy with

amphotericin B. Ketaconazole may prove beneficial in less severe cases of blastomycosis or in those patients who cannot tolerate amphotericin B but further studies are needed to determine ketaconazole's role in the treatment of blastomycosis.

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Robert G. Drake, Jr., is a Diplomate of the American Board of Family Practice and is in private practice in Somerset, KY.

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INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

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EDITORIAL

Physician Surplus: Boon or Boondoggle

One phenomenon of our time is an almost universal physician awareness and frequent concern about factors that are modifying health care delivery. Medical journals, traditionally directed to scientific reports, are now replete with editorial prognostications and despair data about continuing governmental control of medical practice, the appearance of "for-profit" corporations and diminishing health resources. Scientific programs of medical societies, regional, state and national, are interrupted with symposia on issues such as health care alternatives and the effect of DRG's on physician income.

One area of concern to some physicians, one that seems very real, and yet one that has failed to receive adequate attention, is the growing surplus of physicians in the United States. Less alarming is the prediction that we will not have a surplus of physicians but the wrong mix of physicians who are in the wrong places. While minor efforts to address this problem have been made, for example, decreasing the enrollment in some medical schools, a concerted and directed action plan is not evident.

Analogies are imperfect. Nonetheless, it may be worthwhile to consider the physician plight of our European neighbors. Steven Schroeder has recently compared and contrasted the physician supply and specialty distribution in four western European countries, United Kingdom, West Germany, The Netherlands and Belgium, with the United States.[1] In each of these countries, the ratio of physicians to population has been increasing with continued increases projected in the next two decades. Some of these European countries, today, have greater physician/population ratios than are projected for the United States in 1990. In some European countries, physician underemployment, and at times unemployment, is a reality. As Doctor Schroeder notes, Belgium is restricting specialty training and the Netherlands is reducing both medical school intake and specialty training.

Twenty-five years ago the Bane report to the surgeon general, perceiving an urgent need for more physicians, advised enlargement of existing medical schools in the United States and creation of others. In the following years similar recommendation from other fact-finding commissions were presented. With support from the American Medical Association, the Association of American Medical Colleges and Government, this expansion was realized. Between 1965 and 1982, first year enrollment in United States medical schools doubled from 8,554 to 16,567.

An additional source of physician increase in United States during these years has been the immigration of graduates of foreign medical schools. If present trends continue, it is projected that there will be a physician excess in the United States of 70,000 by the year 1990 and of 150,000 by the year 2000.

In none of the reports of these commissions, either the ones of the 1960's predicting a physician shortage, or the more recent predicting an excess, can one find an estimate of the optimum number of physicians for this country. The corrective measures of the 1960's and 1970's, designed to overcome a shortage, have certainly been overly zealous.

Decisive and perhaps more thoughtful action is now required to limit the projected surplus of physicians, especially specialists. The task is complicated by dynamic changes in health care delivery in this country, coupled with a more health oriented and health awareness society. The role of the physician in this complex health team approach is uncertain at best. Control of the total number of physicians practicing and the number of specialists, may be approached at one or several levels: the medical school, the postgraduate training program, the licensure board, the hospital. On a more international and political note, it has been suggested that ". . . American doctors at last free from the constraint of domestic undersupply, devote some portion of their professional lives to the 70% of human kind that lives in developing countries."[2]

Physician unemployment is not a very appealing term.

G. Randolph Schrodt, M.D.

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New study reveals no interaction between



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In a study evaluating the influence of propoxyphene coadministration on the pharmacokinetics of the oxidatively metabolized benzodiazepines Xanax® (alprazolam) ℞Ⓥ and Valium® (diazepam) ℞Ⓒ, and a benzodiazepine metabolized by conjugation, Ativan® (lorazepam), the following results were reported:

with Xanax, propoxyphene caused a large and highly significant prolongation of half-life and impairment of total metabolic clearance.[1]

in the case of Valium, propoxyphene produced a small but not statistically significant impairment of clearance.[1]

propoxyphene had no apparent effect on the distribution, half-life or clearance of Ativan.[1]

In this randomized crossover study, eight healthy male and female volunteers received single oral doses of alprazolam (1 mg), six received single IV doses of diazepam (10 mg), and five received single IV doses of lorazepam (2 mg), once in a drug-free control state and again during coadministration of propoxyphene (65 mg q6h). Consistent with previous findings, this study evidences that Ativan does not interact with drugs that undergo oxidative metabolism.[2-5] In contrast to most other benzodiazepines, Ativan does not compete for the cytochrome P-450 enzyme system.

The clinical implications of the pharmacokinetic interaction, or non-interaction, of propoxyphene with benzodiazepines are not established by this study. Even without a pharmacokinetic interaction, propoxyphene and benzodiazepines share central depressant properties and therefore should be coadministered with suitable caution. A concurrent pharmacokinetic interaction indicates a need for even further caution. Coadministration of propoxyphene and alprazolam, for example, would produce not only the expected pharmacodynamic interaction, but also whatever additional central depressant effect would be produced by the elevated steady-state plasma concentrations of alprazolam due to its impaired clearance.

Caution should also be observed when propoxyphene is prescribed for patients who use alcohol to excess.

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Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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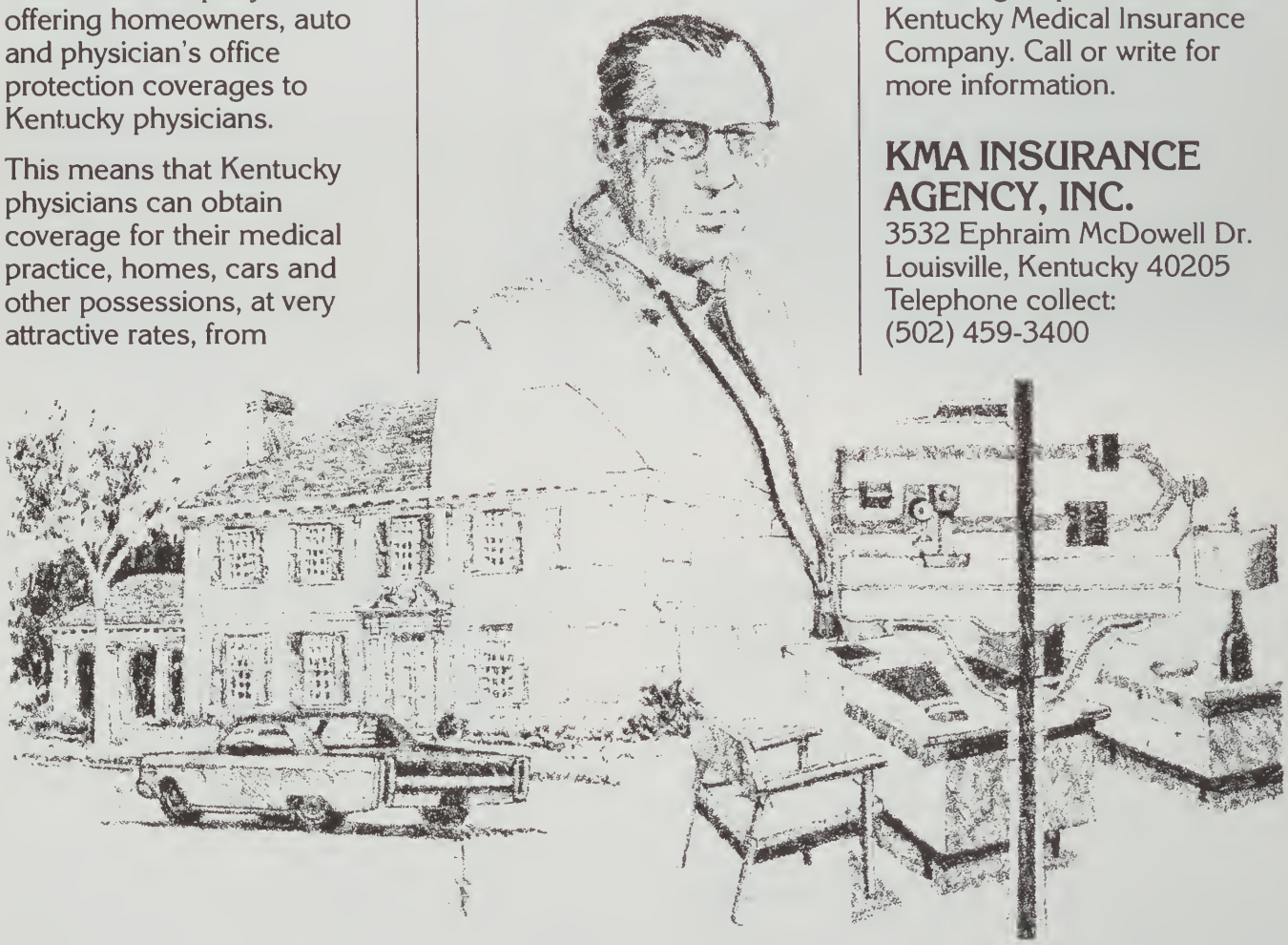
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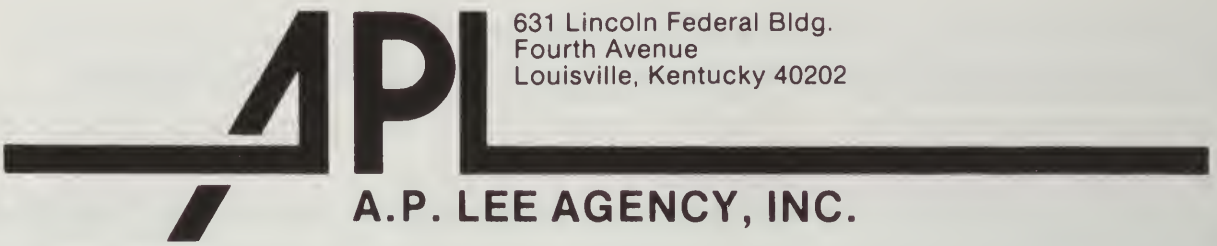
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Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction <30%) or moderate to severe symptoms of cardiac failure. Control milder heart failure with optimum digitalization and/or diuretics before ISOPTIN is used. ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild, and controlled by decrease in ISOPTIN dose). Occasional elevations of liver enzymes have been reported; patients receiving ISOPTIN should have liver enzymes monitored periodically. Patients with atrial flutter/fibrillation and an accessory AV pathway (e.g., W-P-W or L-G-L syndromes) may develop a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion. AV block may occur (3rd degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema, and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with ISOPTIN. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, patients should be monitored closely. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function or in patients who have also recently received methyldopa. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patient carefully monitored. ISOPTIN may have an additive hypotensive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C:* There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR<50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%). The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: confusion, paresthesia, insomnia, somnolence, equilibrium disorders, blurred vision, syncope, muscle cramps, shakiness, claudication, hair loss, maculae, and spotty menstruation. Overall continuation rate of 94.5% in 1,166 patients. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in 80 mg and 120 mg sugar-coated tablets. July 1982 2068

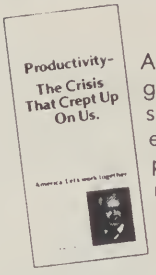
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Symbiosis
Joint Survival in a Competitive Medical Environment

Friday, March 15, 1985

Morning Session

Nelson B. Rue, M.D., Bowling Green, Presiding
Chairman, KMA Board of Trustees

7:30 a.m. **Breakfast**

8:15 a.m. **Natural Selection or Medical Darwinism/Who Will Survive?**
Charles C. Smith, Jr., M.D., Louisville
President, KMA

8:30 a.m. **Transition In Medicine—Roadmap To The Future**
Richard F. Corlin, M.D., Santa Monica, California
Vice Chairman, AMA Long-Range Planning Committee

9:15 a.m. **The Greying of America**
Jack Ossofsky, Washington, D.C., Executive Vice President, National Council on Aging

10:00 a.m. **Break**

10:15 a.m. **Purchasing Medical Care/ A Business Decision**
Paul Gertman, M.D., Boston, Massachusetts
Chairman of the Board—Chief Scientist
Health Data Institute

11:00 a.m. **Americans View Of Health Care/ A Prescription for the Future**
Chuck Rund, Martinez, California
Director of Research and Strategy—Reagan/Bush Campaign

11:45 a.m. **Lunch**
Charles C. Smith, Jr., M.D., Presiding

12:45 p.m. **Luncheon Speaker**
Medical Dreams vs. Economic Realities
Morton Marcus, Bloomington, Indiana
Professor of Economics
Indiana University

Afternoon Session

Wally O. Montgomery, M.D., Paducah, Presiding
President-Elect, KMA

1:15 p.m. **Hospitals and Doctors Joint Ventures/Joint Survival**
Thomas W. Hoban, Minneapolis, Minnesota
Executive Vice President
Hennepin County Medical Society

1:45 p.m. **Business, Government, and Barracudas**
Walter McClure, Ph.D., Minneapolis, Minnesota
Center for Policy Research

2:30 p.m. **The News Media—Medicine's Adversary or Intermediary?**
Glen Bastin, Louisville, Kentucky
Radio/T.V. News Commentator

3:15 p.m. **Break**

3:30 p.m. **Kentucky Physicians Care—A KMA Experiment—A KMA Tradition**
Russell L. Travis, M.D., Lexington
Chairman, Kentucky Physicians Care Operating Committee

3:50 p.m. **Trends in Medical Delivery and Malpractice Implications to Providers**
Riley Lassiter, Louisville
Vice President, Kentucky Medical Insurance Company

4:10 p.m. **Avoiding Malpractice/A Plaintiff Attorney's View**
Larry Franklin, Louisville
Attorney-at-Law

4:30 p.m. **The Emergence of Corporate Medicine**
Robert C. Burkhart, M.D.
Past President, Kentucky Peer Review Organization

4:45 p.m. **Panel Discussion Q & A (Afternoon Speakers)**

5:00 p.m. **Adjournment**
Everyone on their own
Dinner at Hotel with Entertainment

Saturday, March 16, 1985

Stuart Graves, Jr., M.D., President
Kentucky Peer Review Organization, Presiding

7:45 a.m. **Breakfast**

8:30 a.m. **Uncle Sam's Master Plan**
Honorable Wendell H. Ford,
Owensboro, Kentucky
United States Senate

9:00 a.m. **DRGs For Doctors**
Frank Sloan, Ph.D., Nashville,
Tennessee
Medical Economist, Vanderbilt
University

9:45 a.m. **A Survey of Doctors and Patients on Health Care Issues**
Larry Freshnock, Chicago, Illinois
Director, Survey and Opinion Research
American Medical Association

10:15 a.m. **Break**

10:30 a.m. **Sensitivity To Patients/Real Public Relations**
Maury Kulwin, Chicago, Illinois
Department of Practice Management
American Medical Association

11:30 a.m. **Now That We've Survived . . .**
James Sammons, M.D.
Chicago, Illinois
Executive Vice President
American Medical Association

12:00 noon **Wrapup**
Charles C. Smith, Jr., M.D.
Adjournment

Scheduled entertainment on Friday night, March 15, is Glen Campbell. Dinner and entertainment not included in registration.

Joint Survival In A Competitive Medical Environment Conference is open to all members of the Kentucky Medical Association, their spouses and other medically-related groups. A registration fee of $95 per person, or $145 for physician and spouse, will be charged and will include lunch on March 15 and breakfast on March 15-16. Non member physician $150, $200 physician and spouse. Lodging reservations may be obtained by contacting The Executive Inn, Owensboro, at 800-482-8480 or 502-926-8000. Rooms are $34 (single) and $38 (double).

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  How do you really feel about your patient?
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- **How can doctors better communicate their story?**
- **Malpractice — Who is being sued and why. How can it be avoided? — What are the do's and dont's?**
- **After DRG's, fee freezes, and par non-par, what else does Uncle Sam have in store for you?**
- **Will DRG's for doctors be adopted?**
  How will the dollars be spent and who will split the pot?
- **How to retain and attract patients**
  Who are my competitors and what are their tactics?
- **Is it a transition or a revolution? — When will it be over?**

SEE REGISTRATION FORM ON PAGE 103

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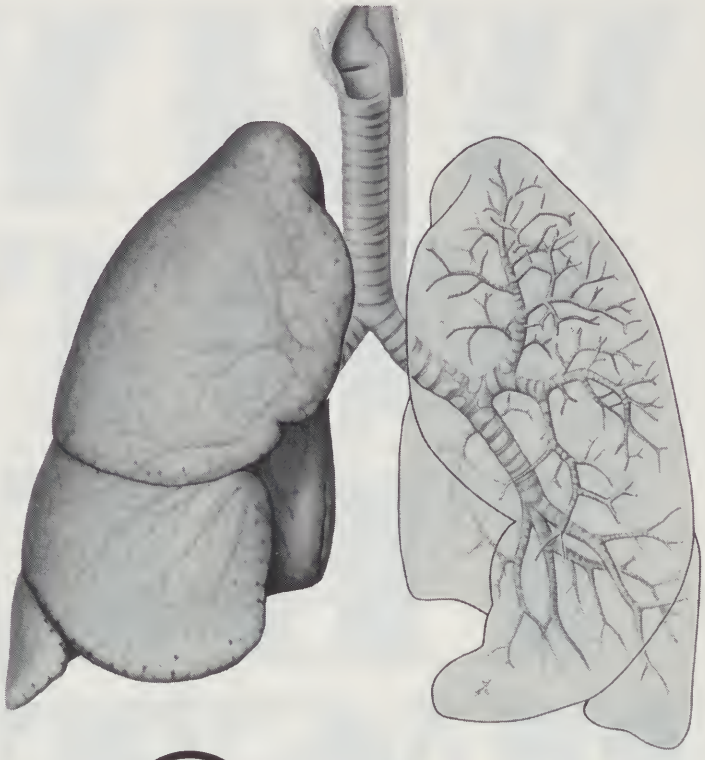


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H. influenzae, *H. influenzae*, *S. pneumoniae*, *S. pyogenes*
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

Note. Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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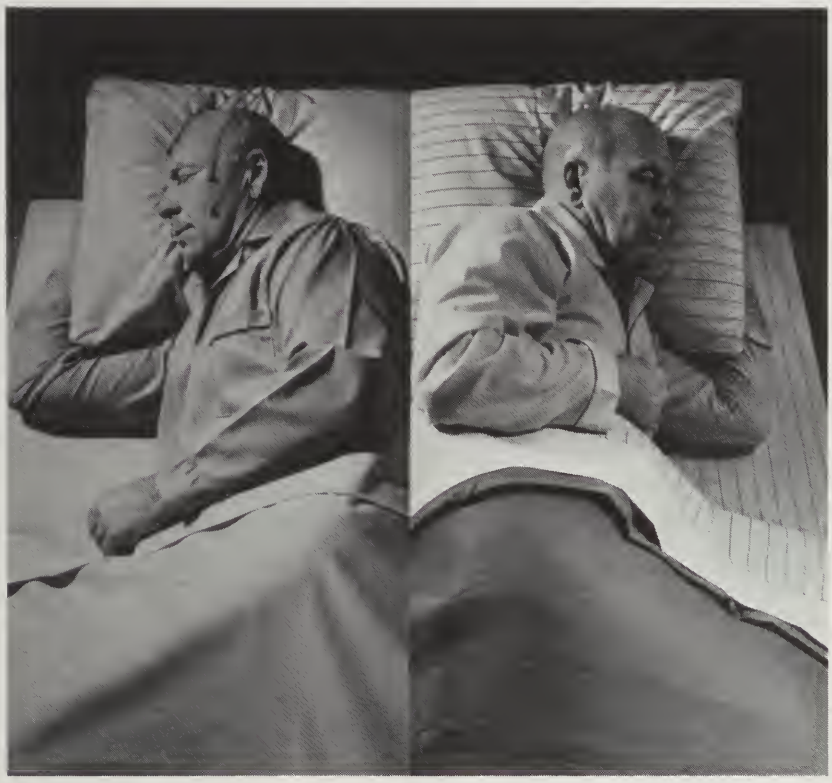
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Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

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References: **1.** Kales J *et al*: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. **2.** Kales A *et al*: *Clin Pharmacol Ther* 18:356-363, Sep 1975. **3.** Kales A *et al*: *Clin Pharmacol Ther* 19:576-583, May 1976. **4.** Kales A *et al*: *Clin Pharmacol Ther* 32:781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. **6.** Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. **7.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. **8.** Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. **9.** Amrein R *et al*: *Drugs Exp Clin Res* 9(1):85-99, 1983. **10.** Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. **11.** Greenblatt DJ *et al*: *Sleep* 5(Suppl 1):S18-S27, 1982. **12.** Kales A *et al*: *Pharmacology* 26:121-137, 1983.

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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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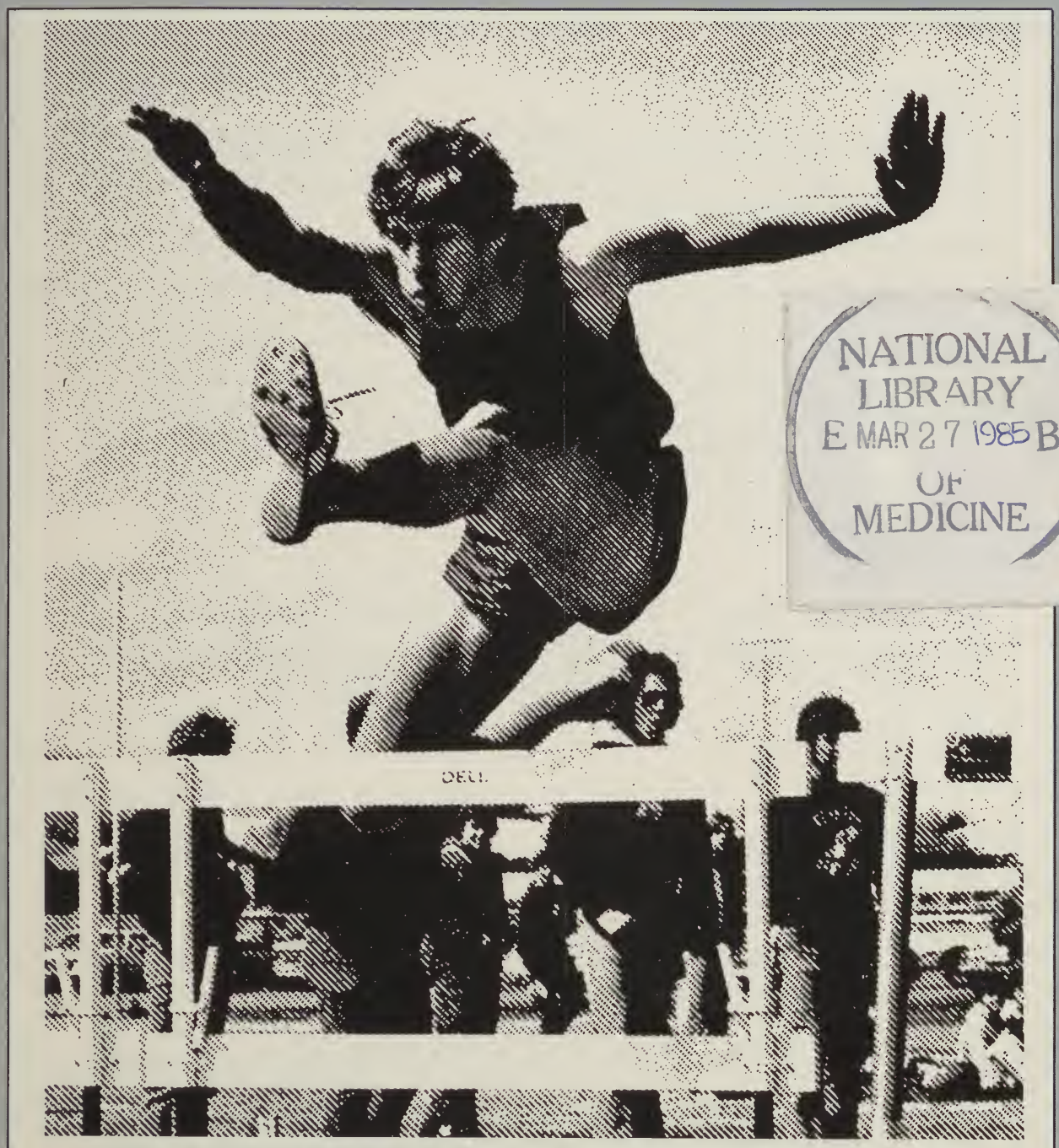
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little likelihood of drug interaction
(all benzodiazepines produce additive effects when taken with alcohol or other CNS depressants)

no significant changes in vital signs in cardiovascular patients*

short duration of action, simple metabolism

*Benzodiazepines have not been shown to be of benefit in treating the cardiovascular component.

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

PRESIDENT'S PAGE



"Experience should teach us to be most on our guard to protect liberty when the government's purposes are beneficient. Men born to freedom are naturally alert to repel invasion of their liberty by evil-minded rulers. The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding."

These words were written by a Louisvillian who was not a member of the Jefferson County Medical Society. Justice Brandeis had chosen the legal fraternity instead.

One is certainly led to think of many examples of the government's encroachment, not the least of which was the Federal Trade Commission's prohibition of peer review activities.

On further reflection, it would seem that the principle espoused here has broader implications at a time of change in medicine. There is a much greater chance for the "knee-jerk" reaction, the entrepreneurial shortcut, and the "businessman's special." In every case the intention is good but the result is questionable.

Our main job has always been to take care of people. The majority of us have been doing it, regardless of ability to pay. We have been trained in the allopathic school of medicine which, safe to say, has taken this nation to its present heights in scientific medicine. The training we have had has brooked no restraints to diagnose and treat illness. In the past 20 years every citizen who could get to care has gotten it. Certainly there are those who have not gotten to it. The Kentucky Medical Association, through Kentucky Physicians' Care, is trying to get them to it.

Now there is great movement to contract the scope of medical care delivery. The innovations introduced by government, private industry, health insurers, and the profession itself are well-known to us. Many of them are well-conceived and represent needed advances to more efficiently deliver care.

On the converse side, however, this calls for eternal vigilance on our part, not only for other's actions, but for our own as well. Those of us who have spent a score of years in peer-review activities know the temptations to quickly judge. Introduction of new ideas to us naturally leads to consideration from a group of individuals trained to constantly adopt new ideas. To please people is strongly inculcated in us by the nature of the process by which we got to where we are as physicians. Accordingly we are apt to give the benefit of the doubt to change. This may sound laughable to anyone outside the profession reading it. But our behavior as individuals and in small groups may differ from the profession as a group. Lest this sound archly conservative I must hasten to a point.

I am talking about all of us and not any particular

group. In the coming years we will be called on to make many judgments as physicians which involve contraction of care by us or by others. To make these requires first the assumption that we are spending too much on health care which may or may not be true. Certainly, the public has decided that cost is the number one issue in medicine. But they have had a constant barrage of news saying so.

As Doctor David Rogers of the Robert Wood Johnson Foundation has pointed out, we must be vigilant for signs of decline in the health of the nation in view of plans for restriction on health-care spending.

In the case of quality of care, the Rand Corporation report, over five years with expenditure of $170 million, was remarkable in that few parameters could be really studied, as pointed out by Doctor Arnold Relman.

Personally, 15 years ago when we studied the literature prior to our bed survey in Jefferson County, it was clear that the more information obtained in peer review about the patient, the more likely one would agree with the attending physician.

First of all, do no harm!

Charles C. Smith, Jr., M.D.
KMA President

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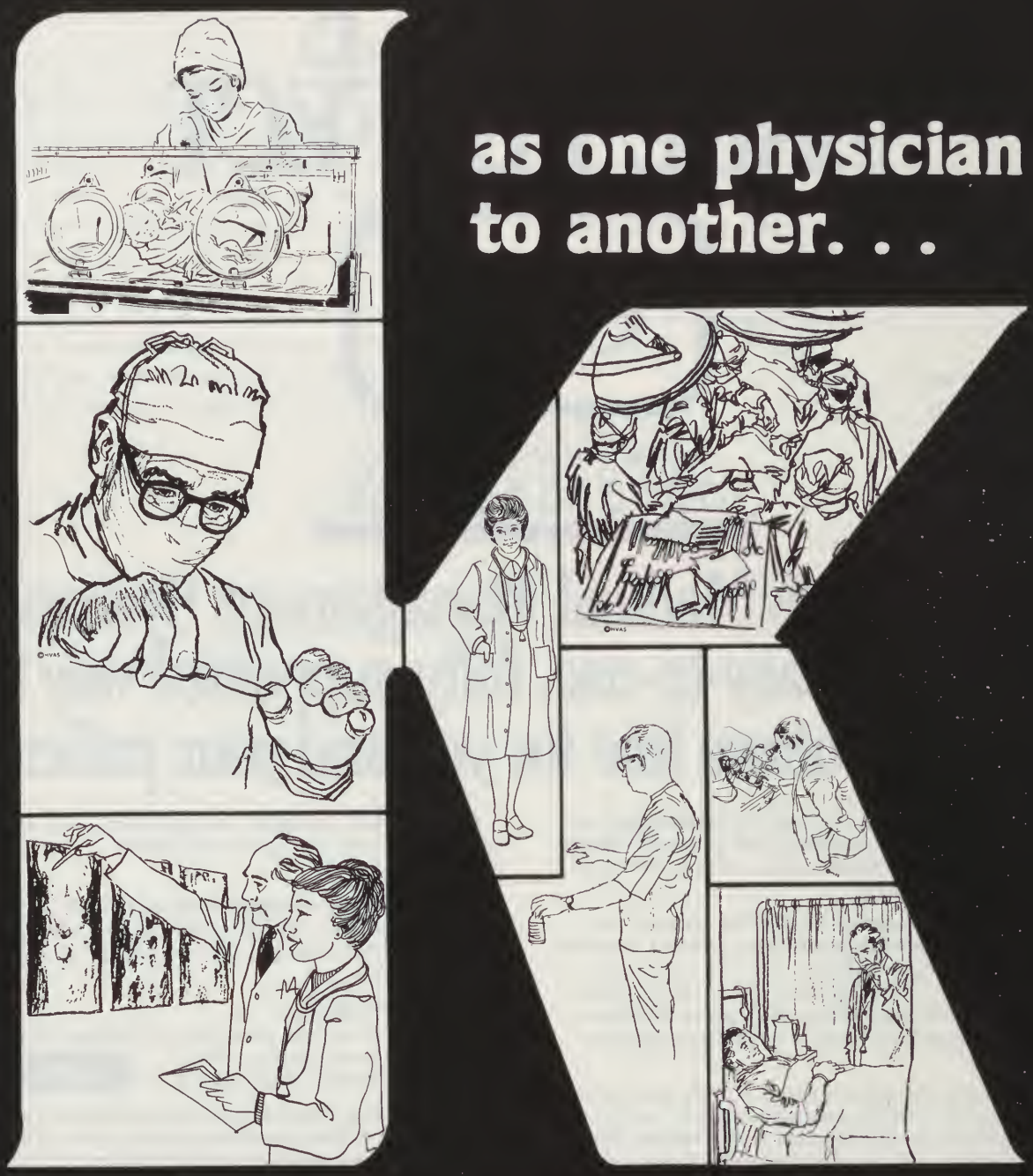
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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae*) and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae*, staphylococci, and *S. pneumoniae*; Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci (*S. faecalis*).

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS: *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro*. Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

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Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Hematologic — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structure infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h). For dosage recommendations in patients with impaired renal function, consult package insert.

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae*: 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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Fracture of the Hip in the Elderly

A Survey of Kentucky Medicare Patients

ROBERT K. JOHNSON, M.D.

The Kentucky Peer Review Organization (KPRO) is mandated by law to assure both quality of medical care and reasonable utilization of resources by recipients who receive benefits under the Title XVIII and XIX programs. The Data and Education Committee of KPRO is charged with the task of attempting to monitor quality of care for these entitled patients throughout the state. One of the largest groups of patients with Medicare who receive surgical care are those with fracture of the hip. Therefore, the Data and Education Committee of the KPRO studied 1,096 patients with hip fractures who were Medicare recipients; this retrospective study involved patients treated from January 1982 through August 1983.

The purpose of this study was to determine the general demographics of this large group of patients and to correlate the actual care provided these patients with a set of criteria generated by the Data and Education Committee of KPRO.

Methods

The Committee elected to survey the use of the following diagnostic information in patients with fracture of the hip: confirmation of the fracture by x-ray, complete blood count, urinalysis, blood urea nitrogen, serum glucose, serum potassium, electrocardiogram and chest radiograph. Given the elderly status of many of these patients, it was felt that the majority of patients would require this type of broad screening. If the studies were performed as outpatients prior to hospitalization and the documentation of the test results were charted, this was not considered a variation.

It was felt that surgical therapy was usually indicated for hip fracture and that generally such operations should be performed within 48 hours of occurrence to avoid or decrease the incidence of complications such as pneumonia and phlebitis that are associated with delay in operation. Therefore, all charts of patients that were operated on after 48 hours were screened to determine the cause for delay in operation. Postoperative factors evaluated included the presence of physical therapy, whether discharge planning was done, the length of stay, and the incidence of complications and deaths.

Hospitals were also grouped according to "cluster" groups which classifies them into one of six such groups based on the size of the hospital, number of operations performed, special capabilities, presence of housestaff, etc. Differences in the above factors were evaluated within the cluster groups.

Results

In a population base of persons covered by Medicare in Kentucky, the proportion of females to males is 55:45. In the hip fracture patients, the ratio was 77 females to 23 males. The average age of the patients in our study was 77, while only 43% of the total Medicare population were in the 70-80 age bracket.

Figure I represented the variations noted on the diagnostic evaluation. The major variations occurred in failure to obtain BUN and serum glucose tests. The overall variation rate for all diagnostic tests was 43%. Possible sources of error in methodology include outpatient studies that were not documented and a lag in charting tests which could result in a "variation" if the chart happened to be reviewed before all the laboratory tests were entered in the patient's record.

Ninety-eight percent of the patients had definitive operative treatment. Two percent of the patients did not have surgical management either because of medical contraindications or because the injury could be better treated non-surgically. Review of these records agreed with these judgments in this small subset of patients. Sixty-four percent of the patients had repair of the fracture with fixation devices such as screws, pins, or nail

TABLE 1

OCCURRENCE OF MAJOR COMPLICATIONS IN 1,096 PATIENTS

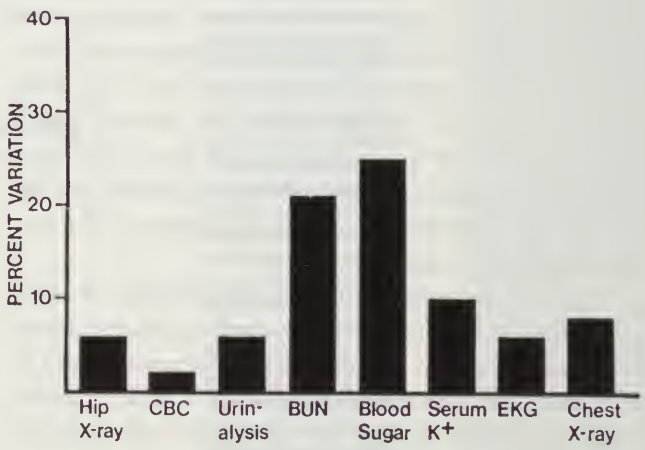
Category of Complication	No. Occurrences	Percentage
Urinary	99	9 %
Cardiovascular	90	8.2%
Respiratory	60	5.5%
Hematologic	35	3.2%
Metabolic-nutritional	30	2.8%
Gastrointestinal	20	1.8%
Neurologic	14	1.2%

and plates. Thirty-six percent had prosthetic replacements. The prosthetic replacements were generally used in fractures of the subcapital portion of the femur in more elderly patients. No analysis was attempted to correlate the specific type of surgical management with the specific type of hip fracture. The surgery was performed within 48 hours in 96% of the patients, and in those in which operation was delayed, a supervening medical problem was usually the reason. We found that 94% of the patients had post-operative physical therapy. In general, the patients who did not receive it were medically unable to benefit from such treatment due to associated medical conditions. Discharge planning appeared to be productive in reducing the length of stay. Early discharge planning was confirmed in the records of 79% of the patients. The Committee used a national guideline of 14 days for the "ideal" average length of stay for patients with hip fractures. This, in fact, was the average length of stay for the uncomplicated patients in Kentucky. However 6% of the patients were discharged in less than 14 days. Twenty-nine percent of the patients had major complications registered that prolonged hospital stay (Table 1). When major complications occurred they delayed the discharge by an average of about seven days. The overall mortality was 4% and occurred almost exclusively because of cardiovascular complications.

Comparison of treatment differences within "cluster" groups showed a wide variability in the type of operation used in certain hospitals or certain regions of the state which appeared to depend on the individual surgeon's preference. While there were some differences in the diagnostic evaluation between cluster groups, the differences were statistically significant. Likewise, there were no significant differences in morbidity and mortality within the cluster groups.

Comment

This study constitutes a large group of patients treated by many different physicians in numerous hospitals and as such is an excellent data base for future studies on hip fractures. It was not feasible to try to correlate types of fractures with the method of surgical correlation because of problems in data gathering, which were caused by the lack of uniformity in coding diagnoses and operations. For instance, in one hospital, diagnoses of the hip fractures treated included comminuted intertrochanteric fracture, subcapital fracture, subtrochanteric fracture, intertrochanteric fracture, femoral neck fracture, displaced subcapital fracture, impacted femoral neck fracture, basi-cervical fracture of the hip, and dislodged femoral neck. It is beyond the scope of our reviewers to reclassify these into narrower classifications. Generally, hip fractures can be broadly classified into intracapsular and extracapsular fractures with minor subclassifications. Certainly, the diagnoses listed on the records did not lend themselves to such a simple system. Similarly, the type of surgical management listed in one hospital were Richard's compression screw, total hip replacement, Knowle's pins, Steinmann's pins, closed manipulation, open reduction and debridement, while in a similar hospital hip pinning, compression nailing, Knowle's pinning, Smith-Peterson nailing, Moore's prosthesis, Ken nail, Zickle nail, open reduction-internal fixation were all listed. In general, the surgical treatment could be broadly classified into fixation devices or prosthetic replacements with some minor subclassifications. The use of standardized nomenclature for diagnostic and surgical categories would greatly enhance the knowledge we could gain from the care of our patients in Kentucky.



Finally, and most importantly, it was the impression of the Committee after careful review of the data gathered on this large number of patients, that the care given to patients with hip fracture reflected a high degree of quality and appropriateness. The fact that 94% of patients received prompt operation was noteworthy. Likewise, the attention to discharge planning, as noted on 79% of the charts, reflects a concern for both the patient's long-term well-being and a societal concern for conservation of valuable resources by the majority of the physicians caring for such patients in Kentucky.

From the Data and Education Committee, Kentucky Peer Review Organization, Louisville, Kentucky

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Management of Cancer Pain

LAWRENCE C. MAGUIRE, M.D.

Patients with cancer often have sustained and prolonged problems with pain. Effective therapy exists to control almost all occasions of pain but, in order to successfully manage these patients with cancer, knowledge of the mechanism of action of pain, the agents available for treatment and their duration, efficacy and cost must be known. With this information, the suffering of cancer patients can be reduced.

The patient's greatest fear when confronted with illness is the potential for pain. When the illness is cancer, this fear is accentuated. Physicians, especially those caring for the patient with malignancy, are faced with these fears daily and their management is a constant problem.

Effective treatment of pain has existed for years but, due to side effects, concern about addictive potential, quirks of pharmacology or lack of familiarity, physicians at times are unable to control a patient's pain effectively. There is no pain, however, which cannot be controlled with available therapy if the situation requires it. The purpose of this discussion is to briefly review the anatomy and physiology of pain perception and concentrate on the management of pain, especially with regard to drug treatment of cancer pain. Emphasis will be placed on practical points of patient management.

Anatomy

Pain is first sensed in the periphery as a result of tissue injury where mediators of tissue injury, *eg*, prostaglandins, histamine, serotonin and bradykinin are released and activate local free nerve endings in dermal, adipose, fascial and perivascular tissue. The impulse is then transmitted by one of two pathways: a) the large, myelinated or A-delta fibers which carry sharp, localized pain at high speed or, b) the unmyelinated, small diameter C fibers which conduct dull, diffuse pain at a slower rate. Both fibers then enter the spinal column via the dorsal root ganglia. The A fibers cross to the ventrolateral funiculus and ascent to the thalamus and finally to the cortex. The C fibers in the spinal cord travel by the paleospinothalamic tract to the brain stem reticular nuclei and finally to the hypothalamus and limbic system.[1] In this way, connections are made with the brain which not only give localization of the phenomenon (A fibers) but also influence effect and emotions (C fibers).

Biochemistry and Physiology

Recently, specific receptors have been found in the brain for opiate type drugs. This led to the investigation of whether there were endogenous neurochemicals with structures like opiate drugs. After some searching, such compounds were found and named endorphins. Currently, the most important ones appear to be beta-endorphin, leucine enkephalin and methionine enkephalin. It is these endogenous opiate-like chemicals which act as central neurotransmitters associated with pain perception. However, these neurotransmitters do not positively effect nerve transmission of pain impulses but rather they inhibit transmission of painful impulses. This then explains the therapeutic effectiveness of opiate analgesics which circulate systemically and enter the brain where they combine with available endorphin receptors effecting an inhibitory influence on incoming pain impulses before they reach central perceptive areas.

Pain perception can also be influenced at the spinal cord level by introduction of intense sensory stimulation (other than pain) of A fibers which then act on C fibers in the spinal cord to block the pain signal from ascension to brain level and, hence, perception. This is the mechanism of action of acupuncture, acupressure, transcutaneous nerve stimulators as well as heat and cold.[1] Pain control can also be influenced at the site of origin of the tissue injury by blocking the chemical mediators of inflammation, especially prostaglandins, which then stimulate the nerve endings. This is the mechanism of action of salicylates and non-steroidal anti-inflammatory agents.[2]

Considerations in Treatment Selection

Pain can almost always be controlled, but at times this may require treatment equivalent to general anes-

Figure 1

ANALGESICS USED IN CHRONIC PAIN

Agent	Dose (mg)	Route	Peak Action (hours)	Duration of Action (hours)	Recommended Dosage Frequency (hours)
MILD PAIN					
Aspirin	650-1000	p.o., p.r.	2	4-6	4-6
Acetaminophen	650-1000	p.o., p.r.	2	4-6	4-6
MODERATE PAIN					
Codeine	30-60	p.o.	1 1/2 to 2	4-6	4-6
Oxycodone (Percocet, Percocet, Tylox)	5-10	p.o.	1	3-4	4-5
Pentazocine (Talwin)	30-60	p.o.	1 1/2 to 2	4-5	4-5
Meperidine (Demerol)	50-100	p.o.	1 to 1 1/2	4-5	4-5
Propoxyphene (Darvon)	65-130	p.o.	1 1/2 to 2	4-6	4-6
Propoxyphene Napsylate (Darvocet-N)	100-200	p.o.	1 1/2 to 2	4-6	4-6
SEVERE PAIN					
Morphine	20-40	p.o.	1 1/2 to 2	4-7	4-6
Methadone (Dolophine)	5-10	p.o.	1 1/2 to 2	4-7	*6-8
Hydromorphone (Dilaudid)	2-4	p.o.	1 1/2 to 2	2-3	2-4
Levorphanol (Levodromoran)	4-6	p.o.	1 1/2 to 3	5-6	6-8

*Analgesic duration shorter than plasma half-life of 17-50 hours

thesia. There are occasions where this is appropriate, but these are rare. It then is a matter of great importance to select from the available options those which are most appropriate for the individual patient's needs. Factors which influence this choice are:

1. Severity of pain. Mild to moderate strength agents are usually adequate for mild to moderate pain while, if pain is severe, more potent therapy is needed.

2. Goal of treatment. Although agents are available to remove completely all pain, often reduction of pain to bearable levels is all that is needed, especially where complete pain control would make the patient too lethargic. In the cancer patient, one seeks optimal pain control with the least somnolence possible. In cancer patients very close to death, however, severe pain may only be controlled by large doses of analgesics and somnolence may be acceptable as long as pain is relieved.

3. Preferred route of administration. In most cases, effective pain control should be achieved by orally administered agents. However, occasionally rectal or parenteral therapy is required. As discussed below, the wide selection of available analgesics makes this possible if chosen correctly.

4. Prognosis of patient. A patient with arthritis may require analgesics for years and concern of addiction is appropriate. In the cancer patient, especially in the terminal phase, concerns about addiction should be excluded in favor of pain control.

5. Source of pain. The best management of any type of pain is removal of the stimulus. Often this is not possible but, in every patient with chronic pain, a removable or improvable source should be sought, *eg*, drainage or irradiation to a focal lesion.

Treatment Options

The mainstay of pain management is drug therapy which has its site of action either in the periphery at the site of tissue injury, or in the brain to interrupt or repress incoming pain signals before they reach perception. At the spinal cord and nerve trunk level, electrical stimulation, acupuncture, neurosurgical ablation by section or injection are also effective. In addition, hypnosis, biofeedback and behavioral modification have

Figure 2

ANALGESIC COST

Agent	Dosage	Estimated cost per 100
Aspirin	650 mg	4.00
Acetaminophen	650 mg	5.00
Codeine	60 mg	54.50
Aspirin + codeine (Empirin #3)	325 + 30 mg	14.90
Acetaminophen + codeine (Tylenol #3)	325 + 30 mg	14.45
Aspirin + oxycodone (Percodan)	325 + 5 mg	25.95
Acetaminophen + oxycodone (Percocet, Tylox)	325 + 5 mg	26.25
Pentazocine (Talwin)	50 mg	32.00
Meperidine (Demerol)	50 mg	27.50
Propoxyphene (Darvon)	65 mg	18.25
Propoxyphene Napsylate (Darvocet-N)	100 mg	27.50
Morphine Elixir		
Locally produced	20 mg/5 cc	28.25
Commercially produced	20 mg/5 cc	42.90
Commercial concentrate (Roxanol)	20 mg/cc	43.00
Methadone	5 mg	8.55
(Dolophine)	10 mg	11.90
Hydromorphone (Dilaudid)	2 mg	22.75
Levorphanol (Levodromoran)	2 mg	26.55

some effect, mainly through their use of other brain nerve pathways to inhibit or divert the incoming painful stimuli centrally. Although all of these methods have their usefulness, the remainder of this discussion will focus on drug therapy. It is particularly important to become familiar with the mechanism of action of the different drug classes, their duration of action and their cost.

Agents for Mild Pain

The most commonly used treatments for mild discomfort are salicylates and nonsteroidal anti-inflammatory agents which act to reduce prostaglandin synthesis by interfering with the enzyme cyclo-oxygenase. Prostaglandins are one group of chemical mediators of inflammation which are produced locally by tissue injury and which then trigger adjacent nerve endings to send the pain signal to the brain. In other words, these agents work in the local area of pain production and do not have effect at higher levels on the nervous system. Aspirin and acetaminophen have the same analgesic and antipyretic effect on a milligram-for-milligram basis. The duration effectiveness of both drugs is about four hours (Figure 1). Their cost is very modest (Figure 2). Other non-steroidal analgesics have similar mechanisms of action, duration of action, similar magnitude of pain control but increased cost. Although occasionally useful, in general, the cost of the non-steroidal analgesics is greater than the benefit.

Although aspirin and acetaminophen are old and long familiar agents, almost all cancer pain perception begins at a peripheral nerve ending which is stimulated. Even using high doses of opiates with their central action, aspirin and acetaminophen can improve pain relief by reducing the peripheral stimulus and hence reducing the flow of painful signals which the opiates need to block more centrally. It is recommended, therefore, to use these agents in combination with all more centrally acting agents. It is important to note that aspirin is contraindicated in cancer patients receiving chemotherapy due to its inhibition of normal platelet function. Only acetaminophen should be used in chemotherapy patients.

Moderate Pain

Moderate pain is pain not controlled despite regular schedules of effective doses of aspirin or acetaminophen but which is not excruciating. Many patients have this magnitude of pain. Here the use of an opiate with its central action and aspirin or acetaminophen is effective. Choices of opiate may be codeine, oxycodone (Percocet, Percodan) or synthetics such as pentazocine (Talwin), meperidine (Demerol), propoxyphene (Darvon) or propoxyphene napsylate (Darvon-N). These all have durations of activity similar to codeine at four to six hours (Fig. 1), all can be used with acetaminophen and aspirin but there is a significant cost difference (Fig. 2) as well as dose equivalency (Fig. 1). In general, my preference is a fixed aspirin or acetaminophen and oxycodone preparation or codeine-acetaminophen combination. The propoxyphenes are more expensive and bulky while Talwin has a mixed agonist-antagonist feature which makes rapid shifting to other opiates a problem and has greater abuse potential.

Severe Pain

When pain continues or becomes unresponsive to these agents at optimal dose and schedule, severe pain is

present. Multiple choices exist to manage this by the oral route. My preference is either some form of morphine or methadone, again preferably in conjunction with full doses of acetaminophen or aspirin for its peripheral activity. Morphine elixir as prepared in a local pharmacy, commercially, as a concentrate commercially or in the Brompton's mixture is the most effective for severe pain. Initial doses of 20 mg or more every four to six hours are very effective. Orally, morphine is 20% as effective as the same dose given parenterally.[3] The Brompton's mixture offers no advantage over morphine elixir, is less readily available and more expensive and should no longer be used. The cost of the morphine preparations vary among the sources (Fig. 2) and between pharmacies. The dose needed to relieve pain should be titrated to the individual. In those settings where reduced dosing frequency and less fluctuation in analgesic effect is wished, methadone should be considered. However, methadone has an 18-24 hour half-life (Fig. 1) and, after several days, more analgesic effect but also more somnolence may be seen. This requires careful counseling of patients and awareness among physicians. It is best to begin with a fixed dose at three to four times a day but not make changes in dose except every three to four days to allow a steady state to develop and also during such time to be prepared to stop the drug and then reduce the dose if excess somnolence develops. Additionally, the cost of methadone is significantly less (Fig. 2).

Other effective analgesics for severe pain include hydromorphone (Dilaudid). This is an effective drug with very rapid onset of action but very short duration of action (two to three hours) (Fig. 1). This requires very frequent dosing of a costly (Fig. 2) and very "street desirable" drug. Levorphanol (Levo-Dromoran) is a good agent with a slightly longer half-life of five to six hours (Fig. 1) but again more costly (Fig. 2). Other choices include high doses of codeine with increased potential for GI upset or meperidine (Demerol) at very large, expensive doses (Fig. 2).

When oral therapy is no longer possible, usually due to inability to eat or drink, not because the agents are ineffective, then parenteral therapy may be needed. However, rectally administered preparations of morphine and hydromorphine (Dilaudid) are now available. This route is effective to a degree but less aesthetic and may also be a source of discomfort. Duration of action (Fig. 1) and cost (Fig. 2) are as shown. Traditional intramuscular doses of morphine, meperidine (Demerol) or codeine are effective but associated with injection site discomfort. Where the intramuscular route is not desired, intravenous bolus morphine or meperidine is very effective, really with very little problems even in chronic lung patients of respiratory compromise if given carefully. Doses of 2–10 mg IV are effective but the duration of effectiveness is only one to two hours and the cost is significant.

In recent years with the availability of reliable intravenous pumps, morphine infusions have been used. In the pre-terminal or terminal state when agitation and severe pain are present, this is the ideal method of pain control. Amounts of 100–200 mg of morphine in 1000 cc of compatible fluid produce 1–2 mg morphine per 10 cc fluid and the IV can be adjusted in increments rapidly up or down to provide prompt, complete pain control with minimum sedation. In the terminally ill, however, pain control and comfort are the prime goals and at times this can only be achieved with levels of morphine causing complete sedation. Often the nursing personnel can be given a range of rates (eg, 0–150 cc/hr) to adjust the infusion allowing great flexibility and safety for the patient. Constant infusion morphine is an excellent tool in the care of the terminal patient and its appropriate use is highly recommended.

Having received the mechanisms of action of the drugs available and their durations of action, cost and rationale for use, all that remains to mention regarding the use of analgesics are a few cardinal rules in their use.

1. Pain medications for chronic pain should always be given on a regular schedule. A p.r.n. analgesic order, especially in the hospital, allows for return of discomfort, dependence on response of others and greater trouble ensuring patient comfort.

2. All narcotic analgesics cause constipation by increasing bowel muscle tone and decreasing peristalsis. Regular bowel function must be maintained near normal for patient comfort. Regular use of promoters of peristalsis, eg, senna derivatives (Senokot, Perdiem, Cascara) or regular cathartics taken with each dose of analgesic are best at maintaining near normal bowel function.[4] My recommendation is Senokot, one half to one tablet with each dose of narcotic with adjustment up or down as needed to maintain normal bowel habits.

3. The dose of analgesic should be titrated to the patient's need and the agent used chosen so a regular schedule can be reasonably followed.

4. Do not fear addiction in the dying patient. Comfort is imperative. Cancer patients rarely become addicted.[5]

5. Use the agents on a schedule consistent with their duration of action.

6. Oral administration is preferable whenever possible.

7. Constant infusion morphine is very effective, adjustable and an excellent choice in the pre-terminal or terminal setting.

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Postgraduate Page

MARCH

22-23 Advanced Cardiac Life Support, University of Kentucky Medical Center, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

28-31 American College of Physicians, 66th Annual Session, Washington, D.C. Convention Center. Contact: Sarah E. Winston, 215/243-1200 or 800/523-1546.

APRIL

10-13 Diagnosis & Treatment of Common Human Tumors, American Cancer Society, Lexington Marriott Resort, Lexington, Kentucky. Contact: John R. van Nagell, Jr., M.D., University of Kentucky Medical Center, Lexington, KY 40536.

12-13 Contemporary Pediatrics for the Practicing Physician, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

19-20 Diagnostic Techniques in Endocrinology, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

20-21 Contact Lens Workshop, Carnahan House, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

25 Rheumatology Update—1985, Bottigheimer Auditorium, Jewish Hospital, Louisville, Kentucky. Contact: Debbie Molnar, Director, Hospital Education, Jewish Hospital, 217 E. Chestnut St., Louisville, KY 40202, (502) 587-4375.

25-28 Annual Meeting, The Virginia Society of Otolaryngology-Head and Neck Surgery, Tides Inn, Irvington, Virginia. Contact: Donna Strawderman, 4205 Dover Road, Richmond, Virginia 23221, (804) 353-2721.

29-30 Medical Aspects of Sports Symposium: Prevention of Sports-Related Injury, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

MAY

8-11 Annual Meeting, The Virginia Society of Ophthalmology, Boar's Head Inn, Charlottesville, Virginia. Contact: Donna Strawderman, 4205 Dover Road, Richmond, Virginia 23221, (804) 353-2721.

19-24 Sixteenth Family Medicine Review—Session II, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

JUNE

6-8 New Developments in Cardiovascular Disease—Diagnosis and Treatment 1985, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

A Rare Case of Chondroblastoma Patella in a Jumping Athlete

RONALD J. FADEL, M.D.

Presented is a case report of an extremely rare benign lesion of the patella, in a 13-year-old jumping athlete. Historically, benign chondroblastoma has been treated with patellectomy. Only six such cases have been reported in the world literature, five of which were treated with patellectomy. This patient, with athletic career goals, was treated successfully with excochleation and grafting and has excellent results, 17 months post operatively.

Benign Chondroblastoma is a rare lesion occurring, for the most part, in long bone epiphyses. Its occurrence in the patella constitutes an almost unheard of phenomenon. As noted in a review of the literature, few cases have been reported and treatment for the most part has been patellectomy. Understandably, when this lesion occurs in a person in their second or third decade, as is usually the case, extirpation is significantly disabling. Reported here is a case treated instead with excochleation and fusion.

Case Report

The patient was a 13-year-old, 6 ft, 4 in high school basketball scholarship prospect whose higher educational goals were linked to success in basketball for economic reasons. He presented at the Sports Clinic following a summer basketball camp, with complaints of painful jumping and episodes of mild to moderate swelling in the region of the right knee. Examination confirmed mild atrophy of the quadriceps muscles with slight joint effusion. No crepitance or compression tenderness or instability was present. The knee was otherwise normal. Radiographs revealed a sclerotic, well circumscribed lesion, primarily in the superior pole of the patella, extending to the equator and just subjacent to the cortex and articular cartilage. (See Fig. I). The radiographic appearance strongly suggested a benign process.

Extirpation was entirely out of the question in this young patient with athletic ambitions. Indeed, it would



Fig. I Pre-operative X-ray

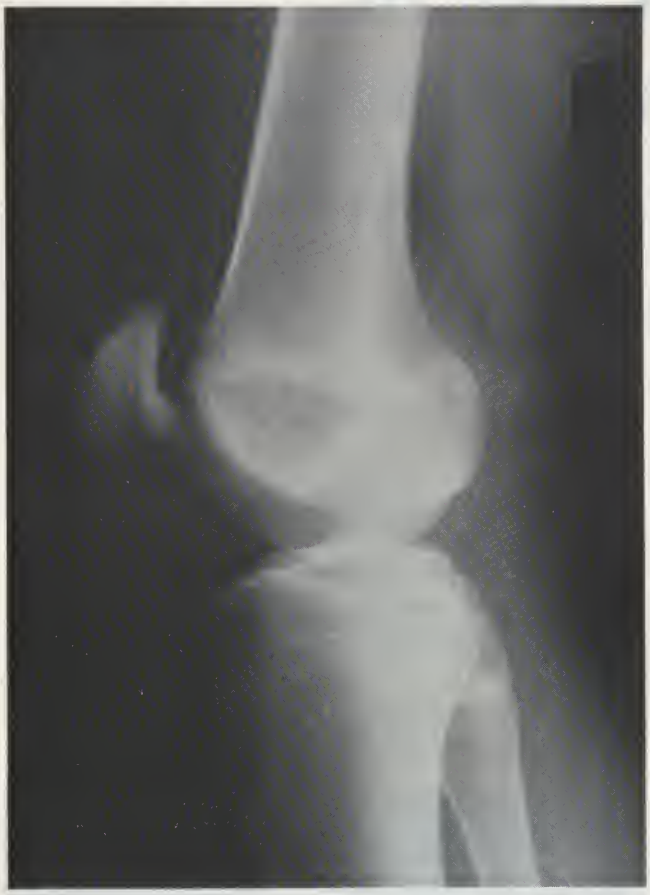


Fig. II 17 months Post-operative X-ray

constitute unnecessary morbidity in a benign process, under any circumstances.

At surgery, an arthroscopy confirmed the patellar articular cartilage to be intact. Subsequently, a cortical window was made in the anterior surface of the patella. The lesion was unroofed and the window set aside for closure. The gross appearance was a multiloculated, extremely sclerotic lesion, grayish red and difficult to remove from normal, adjacent bone. A high speed burr was employed to excavate the lesion, exercising great care posteriorly so as not to violate articular cartilage. Despite these precautions, several small areas of cartilage were exposed. Once the tumor material was removed, the defect was packed with iliac bone graft and the cortical window replaced. Six weeks of immobilization was followed by physical rehabilitation and resumption of sport activity.

Seventeen months post-op, the patient continues to enjoy excellent functional status and radiographs indicate restoration of trabeculation in the lesion cavity. (See Fig. II).

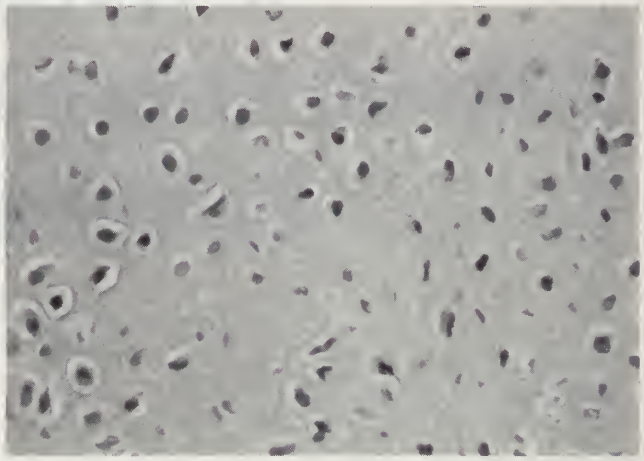


Fig. III Photo Micrograph, H & E stain 40 X

Pathology

Because of the rarity of this lesion, sections were presented to the Armed Forces Institute of Pathology who agreed that this represented an unusual case and location for matrix bound chondroblastoma. (See Fig. III). The cellular matrix exhibited an eosinophilic cystoplasm with closely packed cells, standard features of chondroblastoma, as originally described by Jaffe and Lichtenstein.[1,2]

Discussion

Tumors of the patella are extremely rare and chondroblastoma almost unheard of. In a review study of epiphyseal chondroblastoma of bone, Schajowicz and Gallardo report only three cases in 69 occurring in the patella.[3] Since 1970, only three additional cases occur in the world literature.[4,5,6]

Surprisingly, all except Remagen's case, were treated with patellectomy. In the absence of significant articular cartilage involvement as determined by arthroscopy, there seems to be little justification for imposing such a degree of morbidity and disability on young patients with this benign process. Of great difficulty in this and all benign patellar lesions is preservation of articular cartilage at surgery. Determining the precise point where lesion ends and cartilage begins is nearly impossible. However, as the post-op 17 month film reveals, (Fig. II), a small remnant of tumor appears to be of little clinical significance.

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Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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EDITORIAL

Gentlemen I'm Proud to Know You

The response of Kentucky physicians to the PHYSICIAN CARE/HOTLINE REFERRAL SYSTEM has been overwhelming. When I read in the "Communicator" newsletter of the KMA that approximately 1,500 physicians had signed agreement to participate, I was happily surprised. Then later when I saw in *The Courier Journal* that the up-to-date number was 1,638 physicians, I was ecstatic.

The concept of this voluntary plan came from a panel appointed by the University of Kentucky and was headed by Brereton C. Jones of Midway. After 19 months of ground work and planning, the program came to fruition with a start-up date of the second of January 1985.

What is equally reassuring is the fact that 68 hospitals have also elected to join in this unique voluntary effort. This is important in that it is one thing to see a new patient in one's office and initiate therapy. It is quite something else again to see an acutely ill patient who is in need of hospitalization and have no where to administer this type of care.

At the time of this publication, the program will have been in effect for 11 weeks and we begin to have a handle as to how effective the program is as well as the "bugs" still in the system.

Adversaries and proponents alike are wondering if it will work. Will there be some representation in all of our 120 counties? Will those who sign up to serve actually serve when called upon? Will hospitals that have to be competitive for the health care dollar be financially able to absorb the losses of free care? And the questions go on and on.

A learned medical school professor told me not long ago that the younger students and physicians now rotating through medical school and residencies are a different breed. He feels they lack the altruistic bend of service to those less fortunate. That they have no desire to teach those who are coming along. How I hope that is not so. How I hope that he is wrong. Selfless service to the needy and a commitment to teach make up the warp and weft of the fabric of medicine. It is what sets our profession apart from others.

Below is listed the number of physicians in each specialty group. I don't know their distribution within the state and would assume that the urban areas have better representation than rural areas, but then the need is greater in the cities.

So it's off and running with a bold and new voluntary plan of service to the indigent. I salute those of you who have agreed to serve. This is Kentucky medicine at its finest hour.

Milton F. Miller, M.D.

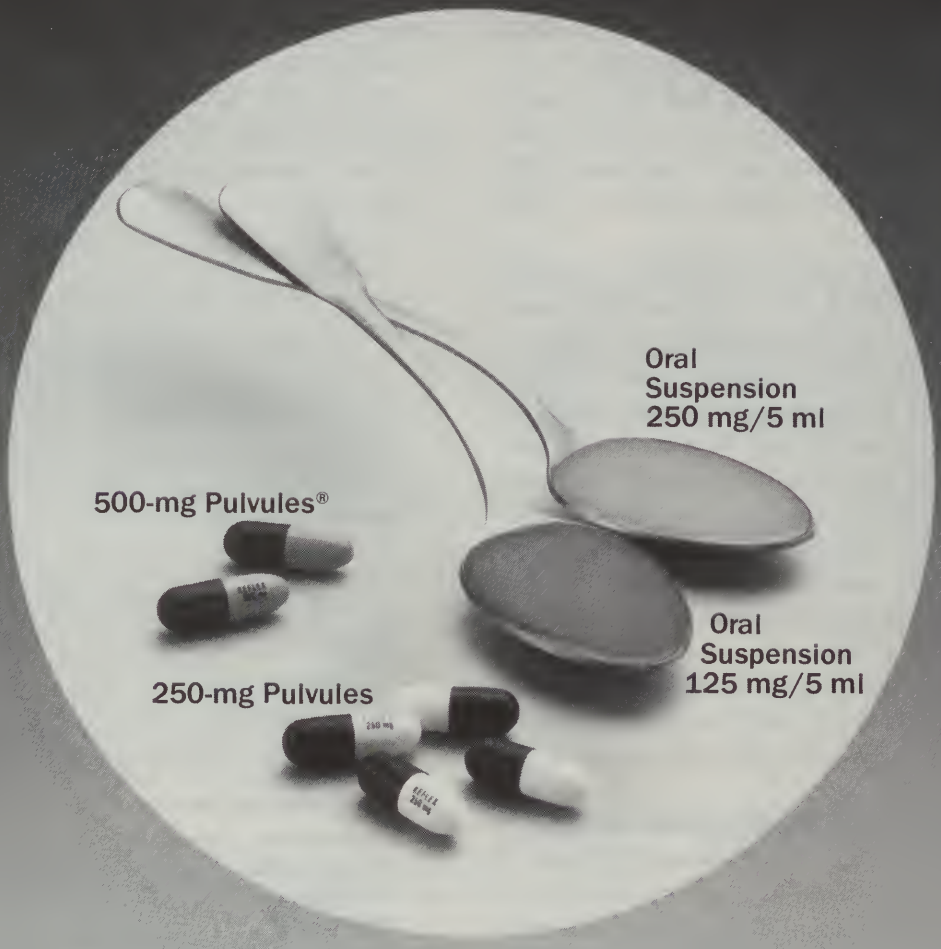
As of November 30, 1984 KMA members- 4,116
Total Physicians in State-5,916

Breakdown Of Specialties:

Administrative Medicine-10
Allergy-31
Anesthesiology-266
Cardiology-111
Colon-Rectal-11
Dermatology-68
Emergency Medicine-191
ENT-18
Family Practice-840
Gastroenterology-32
General Practice-425
Hematology-12
Internal Medicine-811
Neurology-74
Nephrology-10
Neurosurgeons-56
OB/GYN-367
Occupational Medicine-27
Ophthalmology-165
Orthopedic surgery-200
Otolaryngology-83
Pathology-182
Pediatrics-448
Physical and Restorative Medicine-18
Plastic and Reconstruction-52
Psychiatry-326
Public and Community Health-38
Pulmonary-41
Radiology-301
Surgery-544
Thorasic-44
Urology-120

Six hold no specialties (i.e., Ph.D.)

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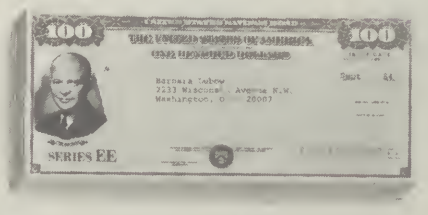


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Auxiliary



Adelyn Spalding, President of AKMA



Pat Durham, Secretary of AMAA

The notes of the Auxiliary to the Kentucky Medical Association 'chord'ially invite all physicians' spouses to the Auxiliary's 63rd Annual Convention April 15-17 at The Seelbach Hotel, Louisville, Kentucky. Harmony (AKMA) is extremely pleased to have as its guest the secretary of the American Medical Association Auxiliary, Mrs. Pat Durham (Mylie E., Jr.) of Houston, Texas. Mrs. Durham will address the House of Delegates and install the 1985-1986 AKMA officers.

1985 CONVENTION

MONDAY APRIL 15

10:30 a.m.-1:30 p.m.	Registration
11:00 a.m.	Finance Committee Meeting
12:00 noon	Membership and Planning Committees
1:15 p.m.	Executive Board Meeting
2:00 p.m.	Tour of Louisville Stoneware
5:00 p.m.	"The Kentucky Show"
6:30 p.m.	Dinner-Entertainment
8:00 p.m.	Pre-Convention Board Meeting

TUESDAY APRIL 16

8:00 a.m.	Registration Set up Exhibits and AMA-ERF Silent Auction
9:00 a.m.	House of Delegates
12:00 noon	Luncheon and Style Show to benefit Ronald McDonald Houses
2:30 p.m.	House of Delegates Shower for McDowell House Installation of 1985-1986 Officers
6:00 p.m.	Reception honoring the new officers Entertainment
7:30 p.m.	Dinner honoring past AKMA presidents Program

WEDNESDAY APRIL 17

8:00 a.m.	Breakfast
9:00 a.m.	Board Meeting

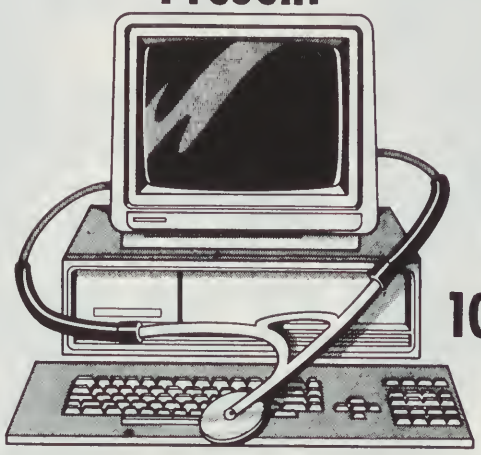
Meal reservations, pre-registration and hotel reservation information in the March issue of Bluegrass News.



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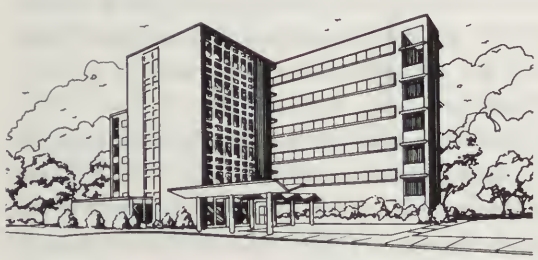
Guest Speakers

F. Robert Fekety, Jr., M.D.
Head, Infectious Disease Division
Department of Internal Medicine
University of Michigan
Ann Arbor, Michigan

Lisa G. Kaplowitz, M.D.
Assistant Professor
Division of Infectious Diseases
The Medical College of Virginia
Richmond, Virginia

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Chairman of the Board Nelson B. Rue, M.D.

Nelson B. Rue, M.D., leans forward in his chair, peers over the top of his reading glasses and surveys the surroundings from his position at the head of the 35-foot long table.

Most of the seats at the table are filled as are the extra chairs placed around the room. The low level of conversation is interrupted by the bang of a gavel. Doctor Rue, Chairman of the Board, has called to order the December meeting of the KMA Board of Trustees.

While many of the items on the Board agenda will be repeats of old issues, *eg*, government interference, allied health groups, third party payors, Medicare, *etc*, a new program is being implemented by the KMA. Much of the discussion during this meeting will center on the Kentucky Physicians Care/Hotline Referral System which will provide physician professional services to indigent patients in Kentucky who are ineligible for government programs.



As Board Chairman, Doctor Rue sees this as being the major issue right now for the KMA. "I think that we as physicians have traditionally done what we are being asked to do now. At first I regarded the Health Care Access Committee to be one with a superfluous function, only serving to add paperwork to the duties of physicians who have been taking care of indigent patients right along. I am very happy to participate for the simple reason that as a result we will learn how many dollars of free care we are giving away and have always given away," he says matter-of-factly.

Doctor Rue is a Bowling Green general surgeon and has been a Trustee from the Sixth District since 1981. He is a member of the KMA Trends Committee and from this experience has gleaned insight into the new directions of medicine. He believes KMA must play a strong leadership role and represent all physicians. He explains, "Sometimes we lose sight of the fact that we who are "older" and have been around a while have a tendency to protect the status quo. We must be innovative or we will lose members. Physicians coming out of medical school will turn their backs on us if they believe this to be true or if they feel we are looking down on them because they are in "employed positions," *etc*. We have to extend a hand to these people and make KMA fit their mode too. We cannot be negative toward any physician's status as long as we represent all doctors."

While Doctor Rue may be liberal on some issues, he maintains a strong conservative side too. "I'm conservative when it comes to the physicians I represent in the Sixth District. Since I'm their voice, I feel strongly compelled to consider their general conservative tone in my voting. However, having learned to some extent the ropes at KMA, I often feel comfortable with KMA policy because I see how many hours of volunteer effort

are put into developing the various policies and the process that development takes—debate, committee work, staff input. So, I often find myself waving the flag and campaigning vigorously for the KMA position.

Representation of specialty groups is another area of focus for KMA. Doctor Rue is adamant in convincing specialties that the structure of the Association is attuned to their needs. "The common ground for promoting dialogue is our care of people. It's our main reason for being. The AMA is the only national organization that represents all physicians. All of the forces that effect physicians are dealt with in the arenas of the AMA, KMA and county societies. The average specialty society has only one or a few areas of concern. The KMA has more voices than any one subgroup, and if I had my way, it would include the nurses too because they would add strength to our political force. We are all trying to serve society. Society has certain demands and we as physicians strive to meet those demands. In some controversial cases our policies may have to be watered down, like the issue of brain death. Undoubtedly there will be some divergence. But if we are attacking an issue such as Medicare Assignment, I'm sure we will have much stronger unanimity."

Competition is another word that has become jargon in medical circles—competition between hospitals, physicians, etc. Competition has brought about advertising of medical services which until recently was considered taboo. Advertising directed to the patient has become sophisticated and according to statistics quite effective in attracting the health-care dollar. Doctor Rue talks about his attitude toward this trend. "I don't object to advertising as long as it is done tastefully. For example, we recently had an advertisement in the Bowling Green newspaper which was printed in a little box that said, 'We Care.' This was an ad for the Bowling Green Medical Society. Now, to put that in the paper one must live up to it and people look at that and say, 'I wonder what it is they care about?' The opportunity for a negative reaction in that situation is big in my mind. Conversely, the type of ad published by the New Jersey Medical Society is beautiful. One ad shows a grandfather sitting, talking to a little boy. It says, 'Fifty years ago this grandson probably would not have known his grandfather.' Another ad shows a pair of hands passing down stone tablets with DRG's carved into them. It says, 'Some people think DRG's were passed down from the heavens.' These ads do some good. They teach. They establish the fact that we care enough to invest



our money to educate the public and they subtly tell people we're helping, we're here and we have something to offer. To come forth with a statement saying, 'We Care' leaves us open for questions like, 'Care about what? Money, power, prestige? So, I'm pro-advertising, but in a subtle, informative and educational manner. I think it should be done on a collective basis by a group of physicians or by an organization rather than an individual."

Doctor Rue moved to Bowling Green from Franklin, Tennessee when he was 15. He attended high school and college there before attending the University of Louisville School of Medicine.

After practicing medicine in Bowling Green for one year, Doctor Rue moved to Wiessbaden, Germany where he practiced for three years while serving in the Air Force. He and his wife Sue then returned to Bowling Green.

Doctor and Mrs. Rue dated through high school and college, and married in Doctor Rue's junior year of college. "I met Sue through her boyfriend. As you see, I believe all is fair in love and war. Sue put me through medical school and has always been supportive of what I do."



Together, the Rue's have reared five children. Doctor Rue's voice is full of pride as he talks about each of them. "Three of my children are nurses. Nancy, the oldest, has a masters degree in nursing and is currently applying to be supervisor of Georgetown University Ambulatory Care Center in Arlington, Virginia. Her husband, Richard, works in Washington and they have two children.

"Number two is Nelson B. Rue, III, who lives in Lexington and is a registered nurse and sells operating room supplies. Carol, his wife, has a masters degree in microbiology and is the weekend supervisor of the Central Kentucky Blood Bank. They have two children.

"Jon is an attorney working for a Bowling Green firm which does a lot of medical malpractice work for hospitals and private doctors. Jon's wife Melinda is a teacher. They have one child.

"And then I've got Rebeccah Susan Keck. Rebeccah has her masters degree in nursing and is currently the DRG coordinator for Baptist Hospital in Lexington. She is married to Tom Keck who works for Phone Design in Lexington.

"David Harrison is the baby. He is a senior at the University of Kentucky Law School and wants to practice in middle Tennessee."

A practicing surgeon, Chairman of the Board and father, Doctor Rue is also an avid gardener. He has a garden in his yard that is approximately 90 × 40 feet. "I read *Organic Gardening* from cover to cover. I might not always read the *Journal of KMA*, but I'll never miss *Organic Gardening*. Last year I had 45 tomato plants, 110 broccoli plants, three rows of corn, blackberries, raspberries, asparagus and 30 fruit trees."

Mrs. Rue doesn't share quite the same interest in gardening as her husband. "She isn't much of an outdoors person. She is very creative and an excellent cook, as you can see. She is very much into the family. We have five satellite families. We call ourselves the 1030th support group because of our street address. Our children still regard this as home base. I don't mean that they derive financial support, but a lot of emotional support. My phone bill is astronomical."

Doctor Rue's sensitivity for his family and his patients carries over into the Boardroom. His innate sense of fairness and his ability to be kind even in his criticism may be partial explanation of his success. "Being in the mainstream of medicine has its headaches, but nevertheless, it is informative, so along with my gardening it's a productive hobby."

Donna M. Young

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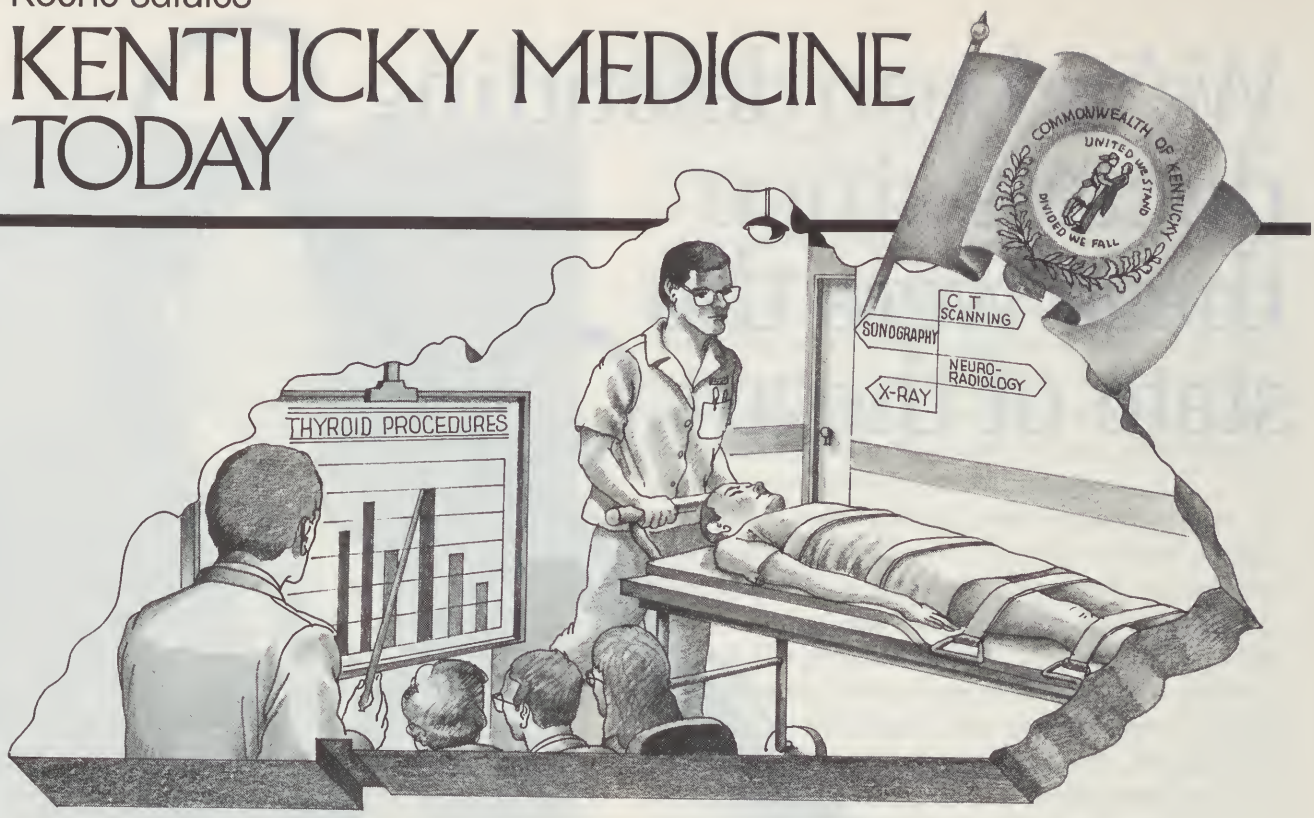
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KENTUCKY MEDICINE TODAY



Thyroid surgery subject of study covering 24 years

In a dedicated effort to assess early and late complications after thyroid operations, members of the Department of Surgery, University of Louisville School of Medicine, recently analyzed records of 407 operative procedures going back to 1958. Overall, their findings were reassuringly positive. A mortality rate of 0.7% was found and attributed to coexisting disease, advanced patient age and delayed treatment. Permanent hypoparathyroidism, probably related to disrupted blood supply, appeared in only 0.9% of cases.[1] This and other statistically significant data indicate that operative procedures on the thyroid carry an acceptably low morbidity and mortality—findings that are a Kentucky contribution to medical science.

See-through stretcher eliminates dangerous transfers

A complete radiographic evaluation of a spinal fracture usually necessitates numerous transfers of the patient between the stretcher and various x-ray and computed tomography tables. Doctors at Audubon Hospital in Louisville reasoned that these potentially dangerous transfers could be eliminated if they had a radiolucent stretcher. So they set to work and developed exactly what was needed: a stretcher strong enough so that the patient's spine is well supported and radiolucent enough so as not to degrade radiographic images. The patient can remain in the same position during the entire radiographic examination of a spinal fracture, including plain x-rays and computed tomographic and myelographic studies.[2] Further, the team designed a traction-device attachment making it possible to apply traction during myelographic examination or to accomplish a closed reduction of a cervical fracture. By obviating the need for accessory traction devices, they have produced a self-contained unit for such procedures.

The strength and radiolucency of the stretcher are assured by its construction with newly developed organic materials—a rigid core of polyimide foam and a carbon fiber-epoxy resin (or graphite-epoxy) material for the outer skins of the board. Four nylon straps with plastic buckles are used to secure the patient to the stretcher across the shins, thighs, hips and torso. Plastic handles attached to these straps on each side are used to lift the stretcher. Eight polyurethane stops on the undersurface hug the edge of the CT cradle to prevent lateral and vertical movement during scanning.

This ingenious self-contained unit makes things easier for all at Audubon, including orderlies, nurses, physicians and, especially, the patients, who now are taken off the stretcher only once—when they are placed on an operating table, a bed or a fracture frame.

References: 1. Max MH, Scherm M, Bland KI: *South Med J 76*:977-980, Aug 1983. **2.** Jelsma RK, *et al: Surg Neurol 22*:167-172, Aug 1984.

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*Feighner JP, *et al: Psychopharmacology 61*:217-225, Mar 22, 1979.

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
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Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and antichalinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.
Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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Book Reviews

Hypnotherapy of Pain in Children with Cancer

Josephine R. Hilgard, M.D., PhD. & Samuel LeBaron, PhD.

William Kaufmann, Inc, 1984

Twenty-four children with cancer were studied and their experiences served as the basis for this book. However, the findings of the Stanford Laboratory for Hypnosis and the particular interest of Dr. Hilgard enrich this book with much useful information.

Children with leukemias mainly, some with lymphomas and solid tumors, must bear frequent painful procedures as well as the pain from their illness. Using hypnotic dissociation techniques, the authors were able to demonstrate a diminishing pain appreciation and anticipatory anxiety to treatment.

Methods of treatment are well explained and importance of establishing the candidacy for this procedure is critical.

Involvement of the staff and parents in this endeavor obviously aided the investigators in obtaining their excellent results. However a valid criticism of their results may be that this intervention and frequent contact with the children were helpful in reducing anxiety and in distraction. Interpreting pain response with its inevitable subjectivity makes scientific conclusions difficult.

Nevertheless, this book belongs in the literature, a credit to the concept of hypnotherapy and a primer for those involved in the care of patients - children or adults - in pain.

Review of Medical Microbiology

Ernest Jawetz, MD, PhD, Joseph L. Melnick, PhD, and Edward A. Adelberg, PhD

Lange Medical Publications, 1984

Dr. Ernest Jawetz and collaborators have completed the 16th edition of this very useful review. We have witnessed the constant evolution of this field, encouraged by both the advances in immunology and the advent of complicated medical therapies.

Consistent with previous editions the book has a basic science prejudice. Medical students and others involved in course work will find this helpful. Nevertheless, it does add tedium to the reading.

Initially the microbes are described as a continuum, emphasizing their interdigitation and the commensal environment. Methods for legitimate study and classification are defined.

Dr. Edward Adelberg, a coauthor, is a geneticist and his pen can be seen throughout the book, with genetic research and conclusions being highlighted.

Biochemistry and physiology are reasonable backgrounds for the material on microbial metabolism, cultivations and life to death cycles. Very nice illustrations and diagrams simplify these sections despite the abstruse material. Host-parasite relationships, so fundamental to understanding microbiology are thoroughly discussed with the treatment interventions mentioned at appropriate spots. Obviously this makes a discussion more relevant.

Some 35 pages deal with immunology from the antigen-antibody basic science to both cell and antibody

mediated reactions. Basic immunology is exhaustingly emphasized, especially for the reader looking for more immediate information. Also several sections on tumor and transplant immunology are underrepresented to be of real use, yet are obviously germane.

Most of the mid part of the book deals with the individual organisms. Pyogenic Cocci, Gram-Positive Bacilli, Corynebacteria, Mycobacteria, Enteric Gram-Negative Microorganisms, Small Gram-Negative Rods, Spirochetes, Rickettsial organisms, Chlamydiae and the fungi are each chaptered with their anatomy, physiology, epidemiology and treatment being respectively discussed.

The viruses are again as in previous editions given much emphasis, reflecting Dr. Jawetz's background. Each virus family is presented similar to but more expanded than their non-viral brethren.

Excellent new parts on tumor viruses and the AIDS infection have been added.

Black and white illustrations of the common medical parasites are interesting, yet will probably not be useful enough to the serious parasitological investigator.

Every two years this book is rejuvenated and many of us have used it for guidance. Such biennial editions are welcome and necessary for our education.

Treating Type A Behavior and Your Heart

Meyer Friedman, M.D., & Diane Ulmer, R.N., M.S.

Alfred A. Knopf, 1984

This is the progeny from "Type A Behavior and Your Health" by Dr. Friedman, the man who coined the term Type A Behavior. Since its publication in 1974, this book has gained an immense following and its vocabulary has been added to our lexicon. From diets, exercise programs and behavior modification, this concept of a dichotomy between Type A and B men and women has been continually discussed.

After a decade of work at Mt. Zion Hospital with 1000+ patients, Dr. Friedman sets to print his experience with treating Type A patients. This optimistic book is filled with suggestions and pronouncements gleaned from Dr. Friedman's experience, both personal and with patients.

Definitions of Type A and B behaviors are given initially with examples of patients and their circumstances. Next, in staccato style, diagnostic methods for finding this behavior type are explained.

Behavior modification is mainly by giving the patient word concepts. We must eliminate low self-esteem, free floating hostility, time pressure, *etc.* Whether in actual groups or by associating indirectly as part of the group, therapy is rendered.

That the book deals with diet (decrease intake of fat), with proper exercise (not running, jogging or vigorous exercise) and acceptance of drugs given by the physician are notable, but not the purpose of this book.

Reading Dr. Friedman's work is interesting for the physician in practice and for him/herself. Obviously such behavior as relaxation, comfort with oneself, decreasing the time and success stress can't help but improve our health. Such adjustments are more difficult for most patients than Dr. Friedman's "volunteers" for his studies. Yet any achievement in cardiovascular protection has to be respected.

Stephen Z. Smith, M.D.
Assistant Scientific Editor

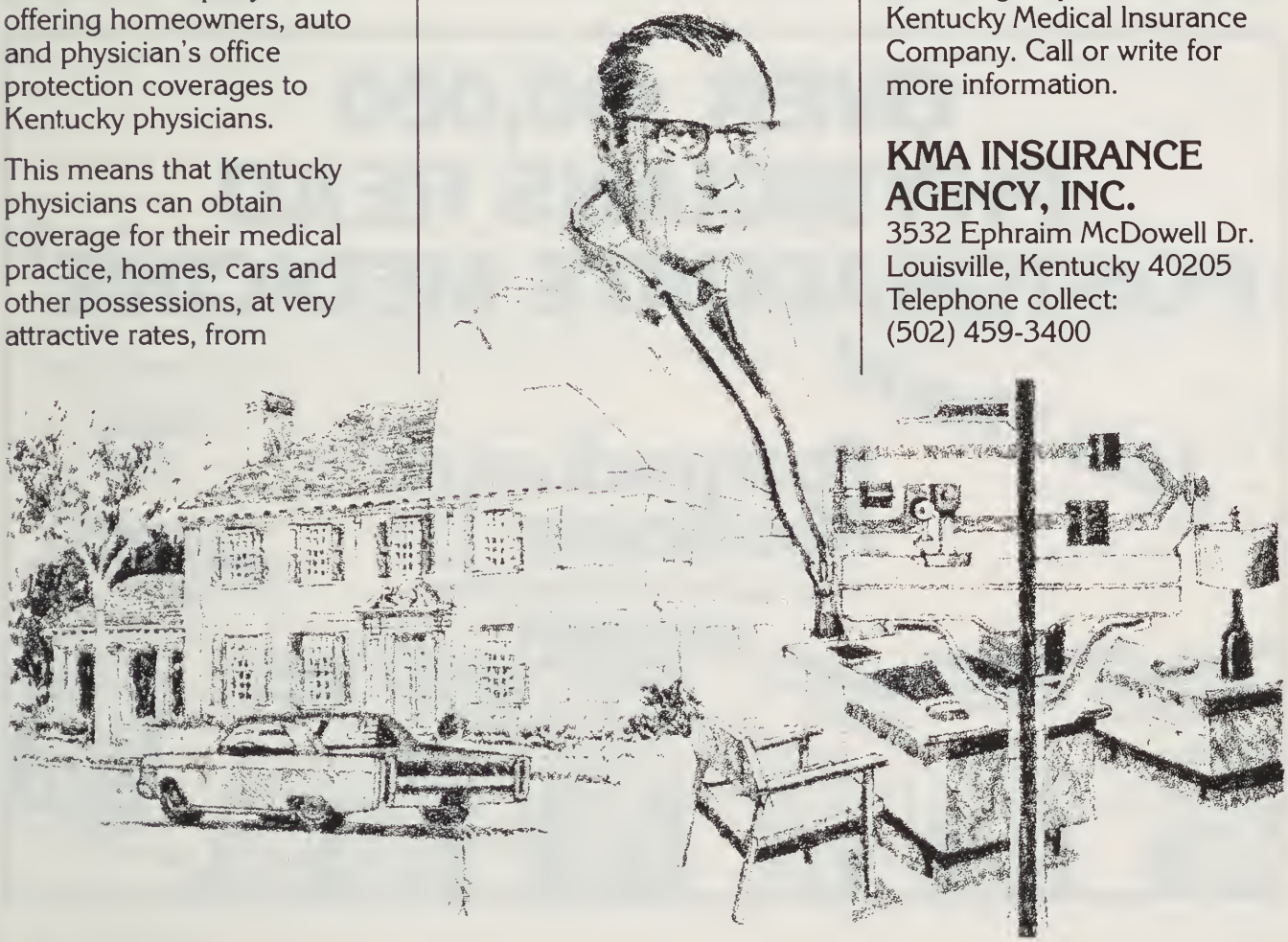
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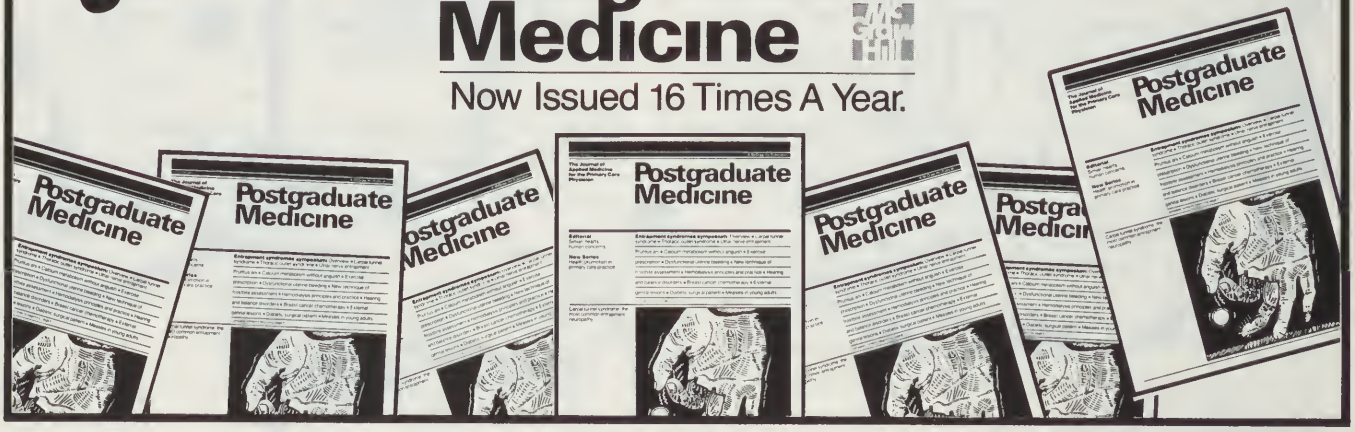
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LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

An ad hoc committee of private and university-affiliated psychiatrists was formed in September, 1984, to evaluate the proposed psychiatric benefits offered by Physicians' Health Plan of Kentucky (PHP). No input from psychiatrists was solicited by PHP concerning these provisions. However, our group did propose a variety of alternative cost-effective provisions which were not accepted. We must report to you that the provisions offered by this plan will affect severely the delivery of necessary psychiatric care to its subscribers. In essence, this plan hopes to be economically competitive by selectively cutting or eliminating psychiatric and other medical services.

To begin, PHP has indicated that they have contracted with Metropolitan Counseling Center (MCC) to manage psychiatric benefits. All patients seeking psychiatric services, even by physician referral, are first screened by this agency. MCC performs this function of "gatekeeper" of psychiatric services for the HMO in Minneapolis which served as the model for PHP. Psychiatrists from that community have found that the nonmedical evaluators (generally social workers) have frequently misdiagnosed patients with serious psychiatric illnesses. Appropriate pharmacotherapy and other treatments have been delayed or absent. There are reports of plan members seeking psychiatric care outside of the plan because of these problems.

The chief executive officer of PHP has indicated that the treatment of chronic mental illness "is inconsistent with the objectives and funding of our plan." As a result, certain patients in need of psychiatric care will face major economic hardship, inadequate treatment, or a shifting to the overburdened state system because of the discriminatory cuts in coverage for both inpatient and outpatient services. These cuts also affect adversely the acute and subacute care of serious psychiatric illnesses.

This is, of course, not the first health insurance or prospective payment plan to provide selective, prohibitive limitations on psychiatric care. However, PHP is the result of the sponsorship and endorsement of the Jefferson County Medical Society. Physicians' Health Plan of Kentucky has been endorsed by our county medical society and purports to be a model plan for health care delivery. Yet, it creates a situation analogous to the regulation and screening of obstetrical care by nurse midwives. There are potential implications for other medical specialties, specifically in relation to physician's assistants, optometrists, and podiatrists. In addition, this plan establishes a precedent for the exclusion of certain patients with chronic illness from basic health care coverage. It is for these reasons that PHP currently has only one local psychiatrist enrolled.

In response to these developments, our committee, and the majority of Louisville area psychiatrists which we represent, recommend the following:

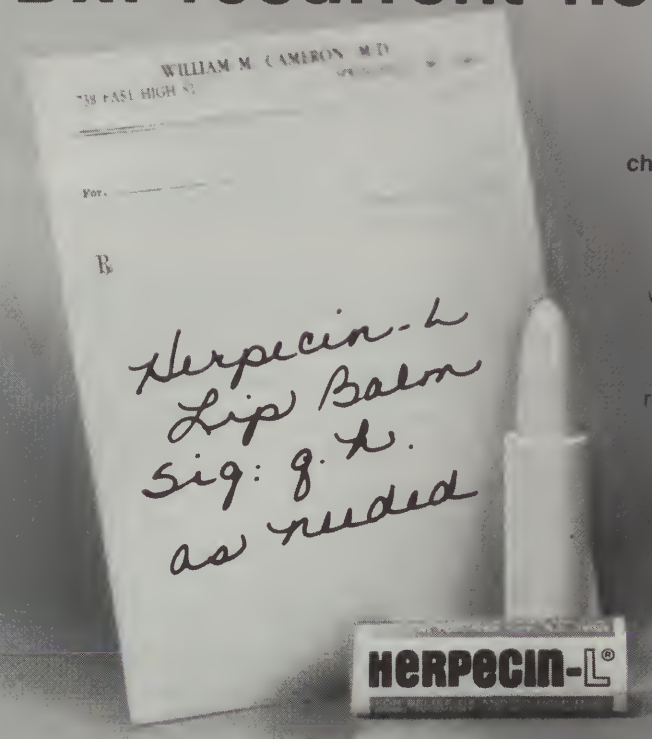
1. Official withdrawal of Jefferson County Medical Society endorsement of Physicians' Health Plan of Kentucky.
2. Nonparticipation by all physicians in Physicians' Health Plan under the current provisions.

We appreciate the support we have received from members of the Medical Society and hope that others will share our concern with this matter and major significance to our community and profession.

Sincerely,

G. Randolph Schrodt, Jr., M.D.
Clifford C. Kuhn, M.D.
Cyrus E. Adams, M.D.
Warren M. Cox, M.D.
Gary Weinstein, M.D.

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PAUL M. GERTMAN, M.D., Boston, Chairman & Chief Scientist, Health Data Institute
The free market forces are revolutionizing the delivery of medical care. A new health system is emerging and the roles of the players are no longer the same.

CHUCK RUND, Martinez, CA, Director of Research and Strategy, Reagan/Bush Campaign
Physicians should monitor carefully the opinions of women and young people. Americans under 30 are the group most out of sync with organized medicine.

RICHARD F. CORLIN, M.D., Santa Monica, California, Vice Chairman, AMA Long-Range Planning Committee
The physician over 60 can phase out of practice or ignore the changes occurring. The young physician will be more receptive to change due to economic pressures. The mid-career physician, who refuses to adapt, is the one with real concerns who may find that he or she is in career trouble.

JAMES H. SAMMONS, M.D., Chicago, Executive Vice President, AMA
It seems to me that's precisely where American medicine and our Federation are standing right now. . . in times of crisis, of danger, and opportunity. . . we must be pro-active in continuing to serve the best interests of the public-at-large and the physician's role as first advocate for patients and the care they receive.

WALTER McCLURE, Ph.D., Minneapolis, Minnesota, Center for Policy Research
We are on a stampede course to public utility medicine. We have three years to get to the hearts and minds of the leadership and the public in this country and tell them there is a private alternative. The biggest hearts and minds that have to be won belong to the doctors. When hospitals go on rate control, the doctors are next.

MAURY KULWIN, Chicago, Illinois, Department of Practice Management, AMA
Many doctors seem unaware that they are treating patients in a cavalier manner—making them wait for long periods of time without a hint of explanation or apology. Time spent waiting in a doctor's office ranks second only to health care costs as patients' biggest complaint.

JACK OSSOFSKY, Washington, DC, Executive Vice President, National Council on the Aging
Of all the people in the history of the world who have reached the age of 65 years, ½ are alive today. In the U.S., 11% of the population is over 65, yet they consume ⅓ of all the dollars spent on health care. The elderly are rapidly becoming the most active group in the U.S. and the politicians are listening.

THOMAS W. HOBAN, Minneapolis, Minnesota, Executive Vice President, Hennepin County Medical Society
Doctors are finding that price is indeed a consideration, and patients will leave for a buck. The collegial attitude is fading among physicians, especially when they set across a table from a doctor who just enrolled three of their patients.

LARRY FRESHNOCK, Chicago, Director, Survey and Opinion Research, AMA
The public image of physicians is a complex and multifaceted concept. In certain areas, such as the socioeconomic, the public steadfastly views their own physician as fundamentally *different* from other doctors and therefore blocks the impact of actual experience on general image.

HONORABLE WENDELL H. FORD, Owensboro, United State Senator
Several considerations are on-going in Washington's bureaucracy and legislative halls to reduce physician reimbursement. These include, DRG's, capitation, fee schedules, and RVS methods. Items under discussion include urban vs. rural fees, specialty vs. primary care fees, differences between cognitive and procedure fees, and the wide range of fees for the same services.

CHARLES C. SMITH, JR., M.D., Louisville, President of KMA
The successful maintenance of the physicians' place depends on keeping that sensitivity and idealism with which most of us started. I'm here to say that as a teacher, student, and practitioner of medicine, there is absolutely no substitue for the physician in the care of the patient.

GLEN BASTIN, Louisville, Radio-T.V. News Commentator
Dan Rather of CBS News was once asked if he "enjoyed getting" one of his *60 Minutes* subjects. Rather's answer pinpoints the problems most people think they have in dealing with reporters. Said Rather, *"I didn't get him, he got himself!"* You wouldn't go into an operation without preparation. Likewise, don't go into an interview without preparation.

RILEY LASSITER, Louisville, Vice President, KMIC
Impersonal, delivery systems, DRG's, and other reimbursement mechanisms that demand "cost cutting" may have a future impact on malpractice numbers and dollars.

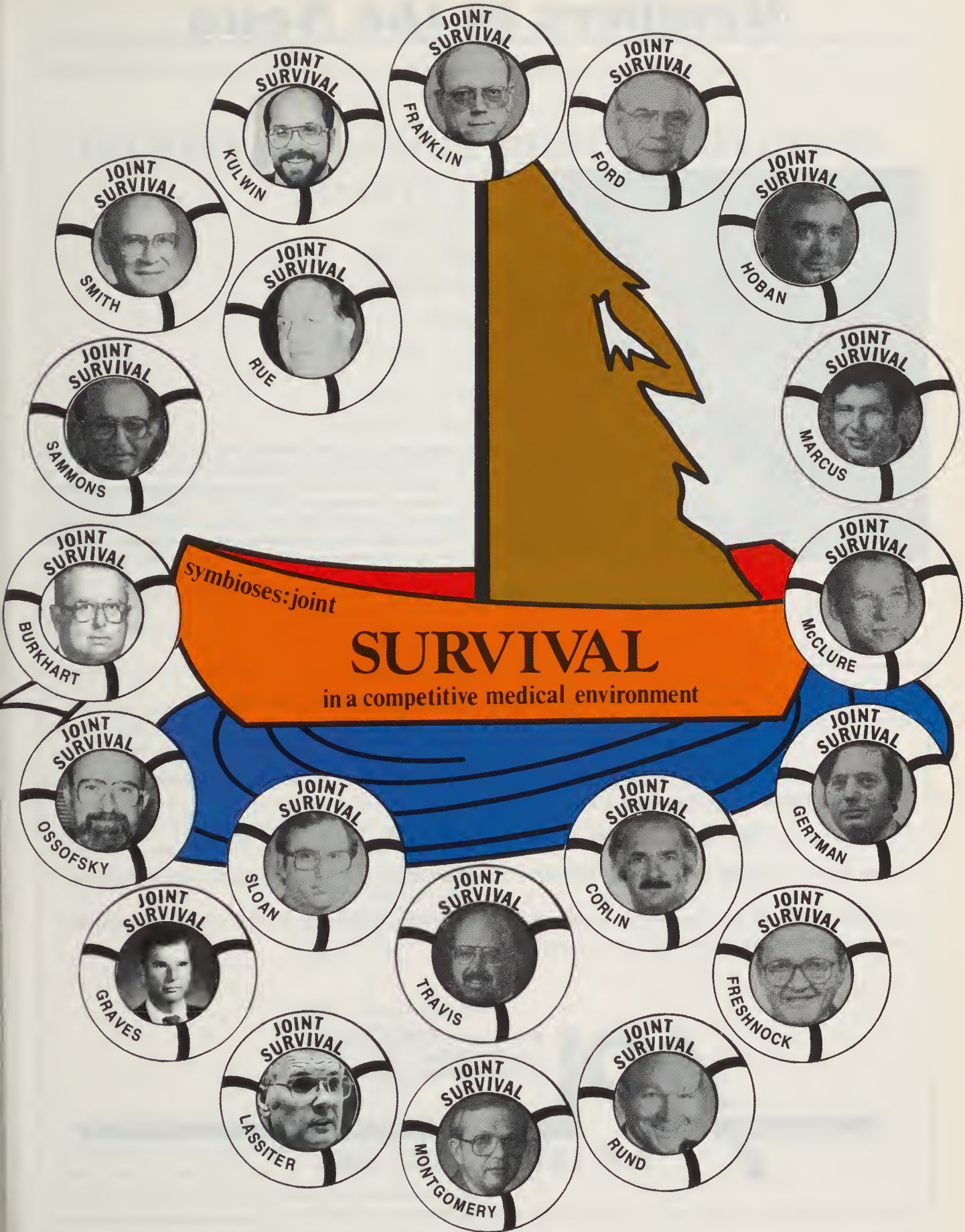
LARRY FRANKLIN, Louisville, Attorney
From the perspective of a plaintiff attorney, how can the physician avoid being sued and what can doctors do to reduce the possibilities. If the doctor is threatened or is sued, what are the do's and don'ts.

FRANK SLOAN, Ph.D., Nashville, Tennessee, Medical Economist, Vanderbilt University
If DRG's for doctors become a reality, who will government choose to divide the pot: Hospitals, physician gatekeepers, medicare carriers, or the medical staffs?

MORTON MARCUS, Bloomington, Indiana, Professor Economics, Indiana University
Special luncheon speaker, Morton Marcus is America's most humorous economist. The world of economics, facts, figures, and statistics provide Marcus with some of his best material.

RUSSELL L. TRAVIS, M.D., Lexington, Chairman, Kentucky Physicians Care Operating Committee
Hear an up-to-date report on the KMA's Kentucky Physicians Care Program. The report includes number of participating doctors, patients, and estimated dollar amount of care.

ROBERT C. BURKHART, M.D., Lexington, Past President, Kentucky Peer Review Organization
As corporate medicine increases its influence among business, government, and the patient, what impact will it have upon the independent practitioner.


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Members in the News



During the December KMA Board of Trustees meeting, Sam A. Overstreet, M.D., Louisville, was honored for his service to medicine and the KMA. After receiving the award, Doctor Overstreet commented, "From a farm boy to a physician, this is the crowning point of my career. You have given me 61 wonderful years of medical practice and three sons who now practice medicine. What more can a man ask."

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Kentucky Medical Association

Kentucky High School Athletic Association

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"Drugs in Athletes" — presented by Robert J. Murphy, M.D., team physician, Ohio State University
"Girls & Active Sports Participation" — Donna R. Perry, M.D., team physician for the U. S. Olympic Women's Basketball Team

Presentations by: John O. Curtis, Ph.D., Health Education Department, University of Wisconsin
Ann C. Grandjean, M.D., R.D., Nutritional Consultant to the U. S. Olympic Committee, Sports Medicine Division
Robert Heidt, M.D., Orthopaedic Surgeon and Director, Cincinnati Sports Medicine Clinic
Dan Primm, M.D., Orthopaedic Surgeon, Lexington, Kentucky

Afternoon sessions will include prevention evaluation and treatment of head and neck injuries, shoulder injuries, knee injuries, ankle injuries and hand injuries. These sessions will be conducted by physicians and athletic trainers with lectures, evaluations and demonstrations.

Monday evening session will feature:

Howard Schnellenberger, Head Football Coach, University of Louisville
Billy Reed, Sports Editor, Louisville Courier-Journal
Alice McDonald, Superintendent of Public Instruction, Department of Education, Commonwealth of Kentucky

For further information contact: Committee on School Health, Physical Education and Medical Aspects of Sports
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205
(502) 459-9790

or

Office of Continuing Education
College of Medicine
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Physicians (in advance): $75.00
Physicians (on site): $80.00
Coaches, trainers and physical therapists (in advance): $25.00
Coaches, trainers and physical therapists (on site): $30.00

Digest of Proceedings Meeting of the KMA Board of Trustees December 12-13, 1984

The KMA Board of Trustees met in regular session on Wednesday and Thursday, December 12-13, 1984, at the KMA Headquarters Building.

The President, Secretary-Treasurer, Senior Delegate to the AMA, and President of the Auxiliary presented reports to the Board, along with representatives of the Kentucky Medical Insurance Company, KMA Insurance Agency, Inc., Kentucky Medical Management & Computer Operations, KMA Physicians Financial Services, a Federal Credit Union, and the State Board of Medical Licensure.

A member of the Committee on Impaired Physicians reported the Committee is establishing guidelines for a Benevolent Fund approved by the 1984 House of Delegates to provide loans to physicians experiencing temporary financial difficulty. A member of the Committee on Medical Insurance and Prepayment Plans reported on Blue Cross and Blue Shield's proposal for a rate increase in the KMA members' Blue Cross and Blue Shield group plan, and recommended that the increase be accepted. The Board accepted the recommendation, but asked the Committee to prepare a report on the reasons for continued increases.

The Board approved BCBS Diagnostic Imaging Guidelines which had been reviewed by the Interspecialty Council, and appointed Charles C. Smith, Jr., M.D., Louisville, as Key Man for Senator Mitch McConnell, and asked the Quick Action Committee to finalize an appointment for Congressman Greg Perkins.

It was reported that the hotline/referral service for indigent patients would begin operation on January 2, 1985, and the Board authorized the Quick Action Committee to obtain Association Professional Liability Insurance to protect KMA Officers, Trustees, Committee members, and staff.

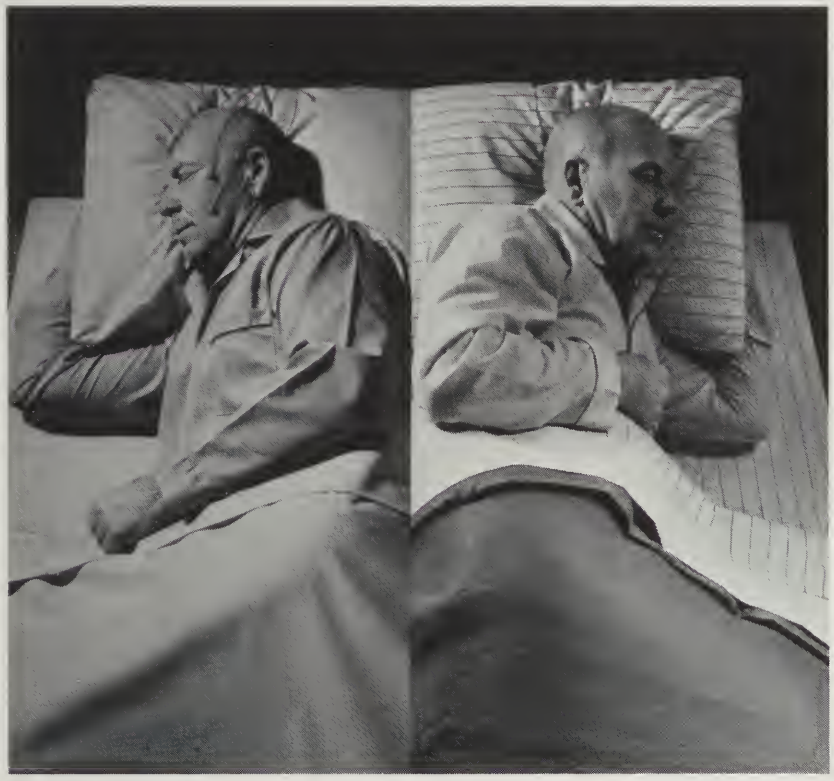
The Board approved plans to include KMA Trustees in membership recruitment efforts, endorsed a pilot program proposed by the Cabinet for Human Resources to replace Medicaid for selected Kentucky residents, and adopted Constitution and Bylaws for the Hospital Medical Staff Section and Resident Business Section, resulting in the recognition of both Sections as official adjuncts to the Kentucky Medical Association.

To avoid conflicting with religious holidays, the Board changed the dates of the 1985 Annual Meeting to September 30 through October 3, and noted that the meeting would still be held at the Galt House in Louisville.

In further action, the Board appointed an Ad Hoc Committee on Professional Liability Insurance to parallel a similar KMIC Committee, and names were selected for appointment to the Kentucky Health Care Coalition and the Athletic Trainers Advisory Council, a Governor-appointed body.

The Chairman set the next meeting of the Board of Trustees for April 17-18 in Louisville.

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References: 1. Kales J *et al*: *Clin Pharmacol Ther 12*:691-697, Jul-Aug 1971. **2.** Kales A *et al*: *Clin Pharmacol Ther 18*:356-363, Sep 1975. **3.** Kales A *et al*: *Clin Pharmacol Ther 19*:576-583, May 1976. **4.** Kales A *et al*: *Clin Pharmacol Ther 32*:781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **6.** Kales A, Kales JD: *J Clin Pharmacol 3*:140-150, Apr 1983. **7.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mar 1977. **8.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **9.** Amrein R *et al*: *Drugs Exp Clin Res 9*(1):85-99, 1983. **10.** Monti JM: *Methods Find Exp Clin Pharmacol 3*:303-326, May 1981. **11.** Greenblatt DJ *et al*: *Sleep 5*(Suppl 1):S18-S27, 1982. **12.** Kales A *et al*: *Pharmacology 26*:121-137, 1983.

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Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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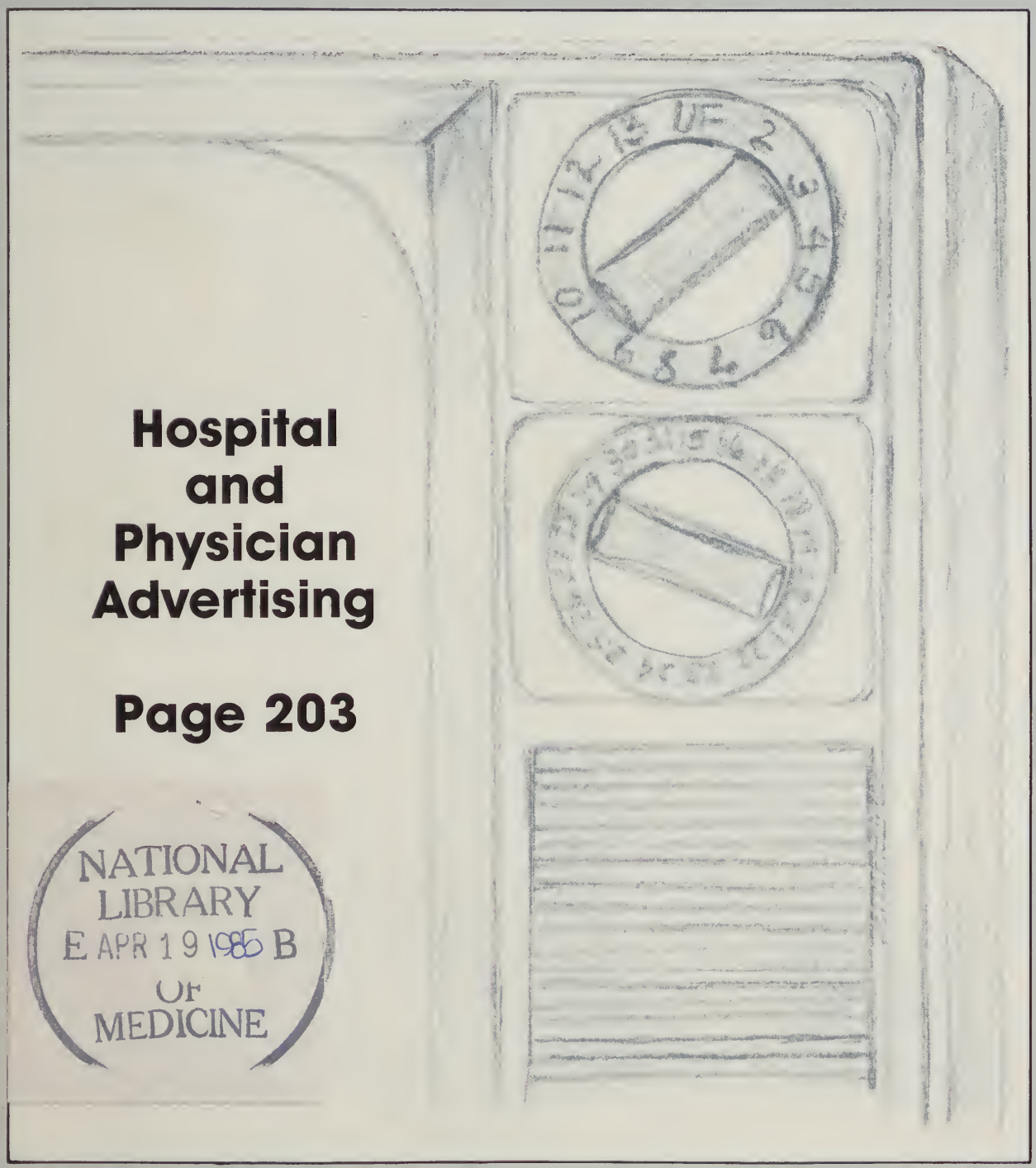
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Volume 83, Number 4 **April 1985**

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Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS: *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro*. Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

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Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Hematologic — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structure infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h). For dosage recommendations in patients with impaired renal function, consult package insert.

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae*: 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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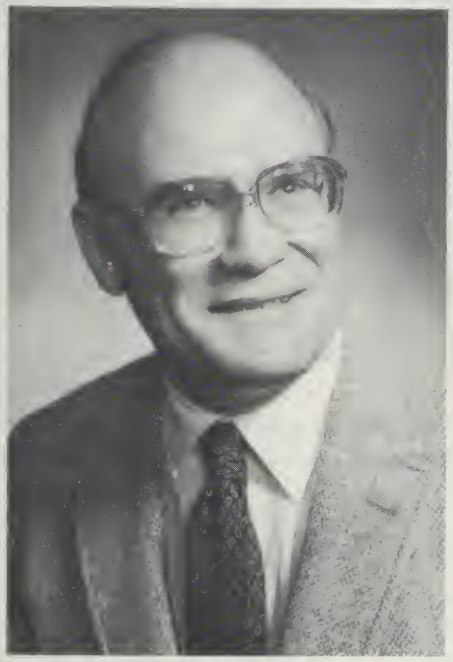
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PRESIDENT'S PAGE



We are now spending $1 billion a day on health. When queried by the AMA annual poll, the public now believes that the largest problem facing medicine today is cost. The percent who believe that to be true has risen in three years from 55% to 68%. The next concern is quality at 12%, with access being the number one problem in the opinion of only 5% of those polled. Eighty-six percent believe that medical care costs can be reduced without reductions in quality.

The federal and state governments certainly do not intend to fund any more health costs unless the electorate clearly speaks to them. Business has said the cost ingredient of its products due to health care is too much. In that same AMA annual poll, the public belief that physicians charge too much rose from 27% to 42% in just two years.

To understand where we are we must look back. In the year I was born the total medical bill for the country was $3.6 billion, or 3% of the gross national product. I asked my father about health care costs and he gave me a cancelled check for my home delivery for $15.00. By the way, it was by a University of Tennessee graduate so if I don't do so well with figures you'll understand. It might interest you to know that the federal budget outlays were $3.1 billion that year under President Hoover. What if we were to relate health costs to the size of the federal budget, which it formerly exceeded? Presently the budget approaches a trillion, as you know.

The comparisons between 1930s medicine and today make for great difficulty. In that day the medical dollar was divided: 30% physicians; 23% hospitals and 18% medicines. Today it's 41% hospitals; 19% physicians and 8% nursing homes — an entity unknown in 1930.

There's a good reason for that. Life expectancy in 1930 was 59.7 years in this country; today it's up to 74.7. In my lifetime we've had an expansion of 15 years in expectancy!

What if health costs continue to rise? If we assume a 3% real rise in GNP per year, as proposed by Princeton economist Uwe Reihardt, then even if health care expenditures were to be 14% of the GNP by the year 2000, the country would still have 44% more real non-health GNP per capita than we have today.

The other fact to remember is that most Western nations spend 8 to 12% of their GNP on health. Why should this be so? Health care is a valued commodity in our society. So are automobiles, leisure items, and certain consumables not necessarily good for our health. We spend a lot on all of them.

Recently we have heard how much in the price of each new car goes for the workers' health insurance. More recently we have read on the front pages about record profits by one automobile manufacturer and an

early payoff of its government loan by another one that all of us taxpayers helped bail out.

One Western nation does not spend so much on health care, holding it down to 5% of GNP. We all know about William Schwartz' book on the rationing of hospital care in England. While in England this summer getting around the country, I learned that the people who get our kind of care do it through private insurance. England has a true two-tiered system.

David Rogers of the Robert Wood Johnson Foundation has written lately of the need to check for symptoms of declining health care. The things to watch include: decline in numbers of visits to doctors, shifts in where people go for care as from personal physicians to emergency rooms, increases in age-adjusted death rates and infant mortality rates, and rises in certain diseases as rheumatic fever and measles indicating lack of early care.

When I was a resident in medicine in the 1950's, Bill Schwartz and David Rogers were two of the brightest stars on the academic horizon. It is exceedingly gratifying to see these two mature physicians up front in guiding the nation's course in regard to health care.

The physicians of Kentucky have already demonstrated that they want our citizens to have access to personal physicians. The hospitals of Kentucky have responded as well. State government has begun a program to secure a personal physician for a large group of patients covered by Medicaid.

It is our responsibility to be certain we are not misled by expediency.

Charles C. Smith, Jr., M.D.
KMA President

"The health of the people is really the foundation upon which all their happiness and all their powers as a state depend."

Benjamin Disraeli

"The health of nations is more important than the wealth of nations."

Will Durant

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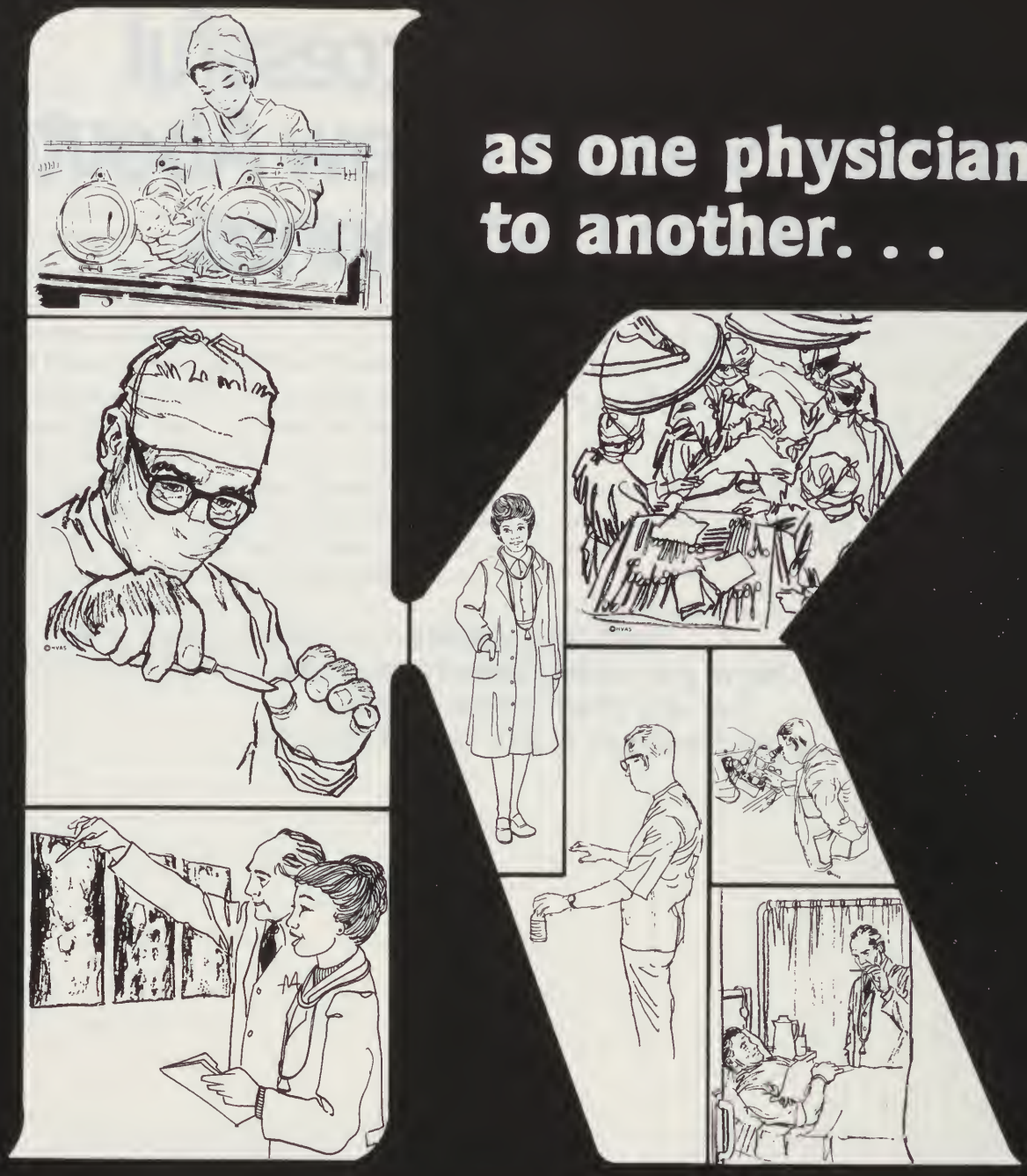
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The Oligohydramnios Tetrad: Its Impact on Genetic Counseling

JOSEPH H. HERSH, M.D. AND JOHN J. BUCHINO, M.D.

The oligohydramnios tetrad is characterized by pulmonary hypoplasia, positional limb deformities, growth deficiency, and Potter facies. As the name implies, the presumed mechanism for these findings is oligohydramnios. Because oligohydramnios is known to result from several causes, we reviewed our experience with oligohydramnios tetrad in order to determine the impact of the etiology of the oligohydramnios on genetic counseling. A total of 30 cases were identified from January 1978 to April 1984. Bilateral renal agenesis comprised the largest category of patients with seven cases. Five patients, three with Meckel Syndrome and two with infantile polycystic kidney disease had known single gene disorders. Five cases resulted from clearly nongenetic causes including chronic amniotic fluid leakage, urethral obstruction and toxoplasmosis. Although in most cases of the oligohydramnios tetrad, recurrence risks to couples considering another pregnancy is small, either a substantially higher risk or actually no risk for recurrence can be frequently determined. Identification of the specific etiology of oligohydramnios in the oligohydramnios tetrad appears critical for genetic counseling.

Historically, Potter in 1946 described a group of 15 infants with bilateral renal agenesis who had very characteristic facial features.[1] Later that year, in a more detailed report of 20 infants with renal agenesis, Dr. Potter made note of the consistent finding of pulmonary hypoplasia and frequent positional deformities of the lower extremities.[2] These findings, which included bilateral renal agenesis, abnormal facial features, limb deformities and pulmonary hypoplasia subsequently became known as Potter's Syndrome.

Following Dr. Potter's initial description, Bain and Scott made note of the fact that the non-renal features of Potter's Syndrome were found in some infants with severe renal anomalies other than bilateral agenesis.[3] While they attributed some features of the syndrome to intrinsic maldevelopment of tissues, they related the lack of fetal micturition to many of the defects. Fitch and Lachance in 1972 hypothesized that Potter's Syndrome resulted from multiple early mesodermal defects.[4] In 1974, Thomas and Smith proposed a hypothesis which stated that all the non-renal features of Potter's syndrome are secondary to oligohydramnios.[5] They supported this hypothesis with several case examples and coined the term "oligohydramnios tetrad." By their definition the tetrad consisted of infants with altered facies, aberrant hand and foot positioning, fetal growth deficiency and pulmonary hypoplasia.

Because oligohydramnios is known to result from several causes, we decided to review our experience with the oligohydramnios tetrad to determine the impact of the etiology of oligohydramnios on genetic counseling.

Subjects

A total of 32 cases was identified from January 1978 to April 1984. Two were excluded due to lack of postmortem examination. In all of the remaining 30 cases, autopsies which included at least chest and abdomen examinations had been performed. Most of these were from the Kosair Children's Hospital, but several cases were referred to us from other institutions.

TABLE

Varions Etiologics of Oligohydrammios and the Associated Components of the Oligohydrammios Tetrad in 30 Cases

Etiology	# Of Patients	Face	Lung	Limb	Growth
Bilateral Renal Agenesis	7	7/7	7/7	5/7	5/7
Bilateral Multicystic/ Dysplastic Kidneys	6	6/6	6/6	5/6	1/6
Unilateral Agenesis/Unilateral Dysplastic Kidney	2	2/2	2/2	2/2	1/2
Meckel-Gruber Syndrome	3	2/2	2/2	2/2	0/2
Vater Association	2	2/2	2/2	2/2	1/2
Renal Hypoplasia	1	1/1	1/1	1/1	1/1
Toxoplasmosis, Renal Hypoplasia, Fetal Ascites	1	1/1	1/1	1/1	0/1
Infantile Polycystic Kidney Disease	2	2/2	2/2	2/2	0/2
Urethral Obstruction	1	1/1	1/1	1/1	0/1
Chronic Amniotic Fluid Leakage	3	3/3	3/3	2/3	0/3
Horseshoe Kidney/Imperforate Anus	1	1/1	1/1	1/1	0/1
Oligohydrammios Etiology Unknown	1	1/1	1/1	0/1	0/1

Results

The table groups the cases according to the major findings associated with the oligohydramnios tetrad. In all cases, lung weights were decreased by at least 50% of expected relative to the body weight and gestational age of the infant.[6] The largest category, with seven cases, was bilateral renal agenesis. However, in approximately three-fourths (23/30) of the cases, oligohydramnios was associated with other conditions. Three infants with Meckel-Gruber syndrome and two with infantile polycystic kidney disease had known single gene defects with an autosomal recessive mode of inheritance. In seven infants, including patients with chronic amniotic fluid leakage, urethral obstruction, Vater association, and toxoplasmosis in which renal hypoplasia was a presumed associated manifestation, the basis for oligohydramnios was most likely not genetic. In one case, the etiology of the oligohydramnios could not be determined clinically and no renal abnormalities were found at autopsy. GTG banded chromosome studies were performed on the peripheral blood of 21 patients, including 12 with primary renal anomalies, and in all instances the results were normal.

Discussion

Since Thomas and Smith's postulate that the non-renal features of Potter's syndrome were due to oligohydramnios, there has been a growing body of experimental and clinical evidence to support this concept. Symchych and Winchester in 1978 utilized experimental oligohydramnios to produce hypoplastic lungs, cleft palates, and limb deformities in rats.[7] More recently, Nakayama *etal*, were able to cause experimental pulmonary hypoplasia by producing oligohydramnios in rabbits through amniotic fluid shunting or by bladder neck obstruction.[8] They further demonstrated that the pathogenesis appears related to direct mechanical restriction of lung growth. Moessinger and associates used guinea pigs to confirm the clinical impression that earlier the onset of oligohydramnios and the longer its duration, the greater is the impact on lung growth.[9]

Mauer *etal* and Marias *etal* gave further clinical support to the Thomas and Smith theory by reporting infants with bilateral renal agenesis who had shared an amniotic sac with a twin capable of normal amniotic fluid production.[10,11] The affected infants did not manifest the non-renal features of Potter's syndrome, presumably because a normal quantity of amniotic fluid was assured by the other twin.

Our series of cases supports the concept that oligohydramnios of any etiology can result in pulmonary hypoplasia as well as facial abnormalities since they occurred in all 30 cases. The fact that positional limb deformities and an intrauterine growth retardation were less constant features may be simply related to the severity and duration of the oligohydramnios.

It has been our experience that clinicians and pathologists alike will frequently make the diagnosis of Potter's Syndrome based on the infant's external appearance and respiratory distress without further trying to define the etiology of the oligohydramnios. As can be seen from the heterogeneity of causes of oligohy-

dramnios in our patients (Table), the simple designation of Potter's Syndrome may be inappropriate in up to three-fourths of the cases. This in turn has a significant impact on risk data presented to couples at the time of genetic counseling.

Potter initially estimated the incidence of bilateral renal agenesis to be one in 4000 births.[2] Although most cases have been sporadic, reports of similarly affected siblings have raised the possibility of an autosomal recessive mode of inheritance in a small percentage of families.[12,13] Carter *etal* has estimated the risk for recurrence to be 3.5% based on the presence of families with bilateral or unilateral renal agenesis in siblings.[14] In contrast, renal agenesis and/or dysplasia in some instances has been shown to be inherited in an autosomal dominant fashion with variable expressivity and incomplete penetrance.[15,16] Establishment of this inheritance pattern may be aided by performing ultrasound examinations on first degree relatives. In five infants with recognizable single gene disorders in our series, *ie.* Meckel Syndrome and infantile polycystic kidney disease, the recurrence risk was 25%. At the other end of the spectrum, there were several cases, typified by chronic amniotic fluid leakage, in which the parents could be told that the risk of a recurrence was no greater than that of the general population for having a child with a congenital malformation. In the two cases of Vater Association, which is generally considered to be sporadic in nature, the discovery of bilateral renal agenesis may also justify ultrasonography of the parents.

The term "oligohydramnios tetrad" places significant emphasis on the pathogenesis of the associated anomalies. In addition, it may cause increased awareness on the part of physicians to consider the variety of etiologies for the oligohydramnios. For these reasons, we prefer this designation to that of Potter's Syndrome. If Potter's Syndrome is to be used, it should be reserved for those infants with proven bilateral renal agenesis.

In conclusion, we feel that it is important for clinicians and pathologists to be cognizant of the oligohydramnios tetrad with its multiple etiologies in order to provide effective genetic counseling. This requires that every effort, including a thorough family and antenatal history and autopsy, should be made in attempting to determine an etiology for the oligohydramnios.

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Cervical Cancer Mortality Trends in Kentucky, 1971-83

M. WARD HINDS, M.D., M.P.H.
JOSEPH W. SKAGGS, D.V.M., M.P.H.
CALIXTO HERNANDEZ, M.D., M.P.H.

We examined cervical cancer mortality trends in Kentucky by age and socioeconomic factors during 1971-1983. The greatest reduction in cervical cancer mortality has occurred among younger women and in areas of the state with higher socioeconomic levels. Minimal reduction in rates has occurred for women age 65 and older living in the southeastern part of the state. Even in that part of the state with higher socioeconomic levels, cervical cancer mortality rates for all ages of women have shown little or no decrease since about 1979. Based on comparisons with national and international cervical cancer mortality rates, considerable potential exists for further reduction of cervical cancer mortality in Kentucky. Of primary importance is the insurance that all women receive Pap smear screening.

Approximately 100 Kentucky women continue to die each year from cervical cancer. Cervical cancer mortality rates in Kentucky have been historically high, particularly among white women, who comprise over 92% of the state's female population. Rates among nonwhite Kentucky women were not higher than U.S. rates until 1970-79 (Table 1).[1] It is of particular note that among white Kentucky women, the cervical cancer mortality rate was almost 38% higher than the U.S. rate in 1960-69 and was over 52% higher than the U.S. rate in 1970-79. Such data suggest that prevention of cervical cancer deaths among Kentucky women is lagging behind that being achieved nationwide.

Reductions in cervical cancer mortality rates among Kentucky women have been substantial, nevertheless. A decrease of almost 27% was noted in comparing the years 1971-75 with 1976-80, and this decrease was present to a similar degree across most age groups.[2] A recent examination of cervical cancer mortality trends among Kentucky women suggests that the downward trend may not have continued into 1981-83, however, and also suggests that those parts of the state where socioeconomic conditions are lower may not have participated in the reduction of cervical cancer mortality risk to the extent seen in the remainder of the state.

Methods

Cervical cancer deaths (International Classification of Diseases code 180) and female population estimates by age, county of residence and year were obtained, respectively, from the Health and Vital Statistics Office of the Kentucky Department for Health Services and the Urban Studies Center of the University of Louisville. These data were used to calculate age-specific cervical cancer mortality rates per 100,000 women by year and geographic area. The geographic areas chosen for analysis were Area Development Districts (ADD's) (Figure 1), which are contiguous county groups felt to be relatively homogeneous with respect to general economic factors.[3] For each ADD, we obtained an estimate of two indicators of socioeconomic status of the population during the decade of the 1970's, based on a mean of 1970 and 1980 census data: The percent of families below the official poverty line (PBP) and the per capita income (PCI).[4-7]

Because of the small number of cervical cancer deaths within age and geographic groups, most analyses were performed using average annual death rates over five-year periods. Time trend analyses were performed using moving five-year average annual rates. Standard least-

TABLE 1.

Age-Adjusted Average Annual Cervical Cancer Mortality Rates in the U.S. and Kentucky, By Race and Decade.

		Deaths per 100,000 Women per Year	
Decade	Area	Whites	Non-Whites
1950-59	U.S.	9.1	21.2
	KY	10.8	20.9
1960-69	U.S.	6.9	17.3
	KY	9.5	16.3
1970-79	U.S.	4.2	10.2
	KY	6.4	11.5

squares linear regression and correlation methods were used to estimate the statistical significance of associations between continuous variables, using programs written for the IBM personal microcomputer.[8]

Results

The average annual age-adjusted cervical cancer mortality rates by ADD and two five-year time periods (1971-75 and 1976-80) are shown in Table 2, along with the percent decrease from the first time period to the second, the PBP and the PCI. Regression analyses with percent change in rates for the 15 ADD's as the dependent variable produced the following best explanatory model ($R^2=0.61$): Percent Change $= -35.9 + 1.59$ (PBP) $- 4.96$ (1971-75 Rate)

The standard error for the regression coefficient associated with PBP is 0.401 and the two-tailed p-value is 0.002. Thus, after adjustment for the baseline 1971-75 rate, the percent change in rates between 1971-75 and 1976-80 was very significantly associated with PBP, such that the higher the PBP, the lower the percent decrease in cervical cancer mortality rate. Adding PCI to the model did not improve it or change the association with PBP described above.

A second analysis also indicated the importance of the relationship of poverty and cervical cancer mortality. The Pearson's correlation coefficient (r) was separately determined between the 1976-80 mortality rates and both PBP and PCI in the 15 ADDs (Table 2). Although significant correlation was found for both, that for PBP was stronger ($r=0.574$, $p=0.025$) than that for PCI ($r=-0.527$, $p=0.043$).

On the basis of the above analyses showing that both absolute cervical cancer mortality rates and declines in such rates are significantly associated with socioeconomic measures among the 15 Kentucky ADD's, we dichotomized the ADD's based on PBP and PCI, into five low socioeconomic and contiguous ADD's (numbers IX, XI, XII, XIII and XIV in southeastern Kentucky) and the remainder. All further time trend analyses were carried out with this dichotomous geographic and socioeconomic division. The five low socioeconomic ADD's are hereafter referred to as Area 1 and the remainder of the state as Area 2.

Table 3 contains the cervical cancer deaths and death rates for Area 1 and Area 2 by age (20-49, 50-64 and 65+ years) and year (1971-1983). Because of the instability of annual rates due the small numerators (deaths), particularly in Area 1, trend lines were graphed as five-year moving average rates (Figures 2-4). Thus the first point on these graphs represents the average annual rate for 1971-75 (midpoint 1973) and the last point, for 1979-83 (midpoint 1981). The general downward trend for most of the lines on these graphs is readily apparent. Also apparent is the marked discrepancy in the lines for Area 1 and Area 2 at all ages and all times periods. When these trend lines were analyzed by linear regression analysis with the mortality rate as the dependent variable and midpoint year as the independent variable, there was a statistically significant negative slope for each regression line except that for Area 1, age 65+ years.

Using the linear regression line equations calculated for each trend line in Figures 2-4, we determined an estimate of the percent change in cervical cancer mortality rates from 1971-75 to 1979-83 by age group and area (Table 4). Two observations are important to note from this table. First, there is clearly a tendency for the decrease in mortality rates to be greater for the younger age groups. This tendency is most marked for Area 1. Second, the percent decrease in rates is consistently less for Area 1. This latter differential is most marked for the 65+ age group, for which, as noted above, the decline in cervical cancer mortality rates was not statistically significant as measured by the slope of the respective trend line in Figure 4.

Discussion

The association of cervical cancer incidence and mortality with socioeconomic status at both the population and individual level is well known.[9-10] This association is reflected in the Kentucky data presented above. The most important personal risk factors for cervical cancer are early age at first coitus and multiple sexual partners.[11]

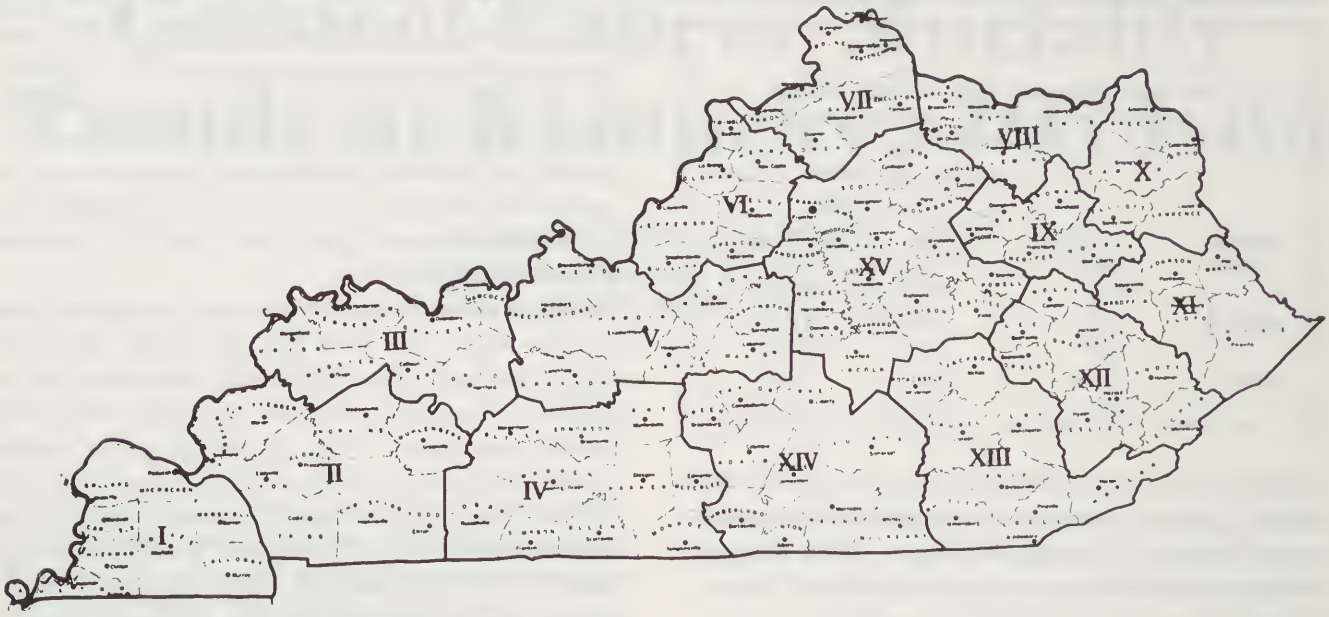


Fig. 1: The 15 Area Development Districts of Kentucky.

TABLE 2.

Average Annual Age-Adjusted Cervical Cancer Mortality Rates for 1971-75 and 1976-80, Percent Change from 1971-75 to 1976-80, Percent of Population Below Poverty and Per Capita Income by ADD.

	Deaths/100,000		Percent	Percent Below	Per Capita
Add	1971-75	1976-80	Change*	Poverty+	Income+
I	7.3	4.3	−41.1	23.2	$5350
II	7.1	5.2	−26.8	32.7	5414
III	7.4	4.7	−36.5	27.7	5671
IV	7.6	4.9	−35.5	33.9	4537
V	5.3	4.7	−11.3	27.0	4560
VI	7.4	5.2	−29.7	20.8	6734
VII	8.2	5.4	−34.1	20.9	5565
VIII	7.3	5.3	−27.4	33.3	4216
IX	10.5	10.2	−2.9	37.3	3807
X	6.2	5.6	−9.7	31.9	5185
XI	8.9	8.9	0.0	42.6	4387
XII	4.7	6.7	+42.6	54.0	3675
XIII	10.8	7.8	−27.8	47.6	3857
XIV	7.0	5.1	−27.1	41.8	3672
XV	7.6	4.7	−38.2	25.8	5766

*(1976-80 rate - 1971-75 rate) - (1971-75 rate) × 100

+Based on a mean of 1970 and 1980 census data.

TABLE 3.

Age-Specific Cervical Cancer Deaths and Death Rates Per 100,000 Women by Geographic Area and Year, Kentucky, 1971-1983.

	Age-Specific Death Rates (Deaths)					
	20-49 Years		50-64 Years		65+ Years	
Year	Area 1*	Area 2+	Area 1	Area 2	Area 1	Area 2
1971	10.5(12)	6.2(31)	16.6(8)	22.3(44)	44.1(14)	22.0(35)
1972	7.6(9)	7.7(39)	16.1(8)	14.0(28)	30.3(12)	27.2(44)
1973	9.0(11)	8.9(46)	25.9(13)	13.4(27)	19.6(8)	20.6(34)
1974	3.2(4)	5.7(30)	19.8(10)	18.2(37)	21.5(9)	22.0(37)
1975	5.3(7)	5.0(27)	25.5(13)	14.6(30)	18.5(8)	18.5(32)
1976	10.8(15)	3.6(20)	21.4(11)	19.4(40)	22.3(10)	15.9(28)
1977	7.7(11)	3.9(22)	3.9(2)	13.0(27)	15.1(7)	16.1(29)
1978	6.1(9)	4.2(24)	19.3(10)	9.1(19)	21.0(10)	16.3(30)
1979	7.3(11)	3.9(23)	9.4(5)	11.9(25)	32.7(16)	16.0(30)
1980	2.6(4)	2.5(15)	14.5(8)	9.7(21)	22.4(11)	16.6(32)
1981	3.7(6)	4.9(30)	21.5(12)	10.6(23)	22.1(10)	19.7(39)
1982	1.9(3)	3.3(20)	23.1(13)	12.5(27)	14.2(7)	15.4(30)
1983	5.0(8)	4.2(26)	8.7(5)	13.8(30)	8.0(4)	20.5(40)

*ADDs IX, XI, XII, XIII and XIV.
+ADDS I-VIII, X and XV.

Cervical cancer mortality rates are a function of both cervical cancer incidence rates (risk of cervical cancer occurrence) and survival rates post-diagnosis. Data are not available to allow the separation of these two components in Kentucky, thus the trends of decreasing mortality rates we found could be in whole or in part due to either decreasing incidence rates or improved survival rates. Because some studies have suggested that low socioeconomic status is associated with poorer cancer survival rates after adjustment for stage at diagnosis,[12,13] the higher cervical cancer mortality rates we noted for Area 1 (Figures 2-4) may well be due in part to poorer survival post-diagnosis.

The most important clinical tool for early detection of cervical cancer is the Papanicolau test (Pap smear). Although a randomized trial of the Pap smear to assess its effect on cervical cancer mortality was never done, few would argue that the available evidence is not strong enough to accept a causal link between Pap smear screening and reduced cervical cancer death rates. A number of epidemiologic and other studies have been published which clearly support this link.[14-16] Although there is considerable debate regarding the most cost-effective screening intervals for Pap smears,[17,18] all authorities agree that every woman should be screened. Unfortunately, it is not yet the case that every woman is screened for early cervical cancer by Pap smear.

TABLE 4.

Estimates of the Change in Cervical Cancer Mortality Rates from 1971-75 to 1979-83 in Kentucky, by Age Group and Socioeconomic Area.

Age Group	Percent Chage in Rates*	
	Area 1	Area 2
20-49	−40.7%	−49.8%
50-64	−30.6	−38.5
65+	−8.3	−22.2

*Based on the least-squares linear regression equations derived for points in Figures 2-4.

Several reports in recent years have presented evidence that a substantial proportion of women in the United States have never had even one Pap smear. As part of the 1973 National Health Interview Survey, over 58,000 women were questioned about Pap smears.[19] Among white women living in non-metropolitan areas, 7.3% of those age 25-44 years, 19.9% of those age 45-64 years and 44.6% of those age 65+ years reported never having had a Pap smear. White women living in metropolitan areas reported only slightly more favorable usage rates, while those for Blacks were worse. Poverty and age were the factors most strongly associated with failure to ever have a Pap smear: poor women (below the official poverty line) age 65+ were over eight times more likely to report no Pap smear than nonpoor women age 25-44.

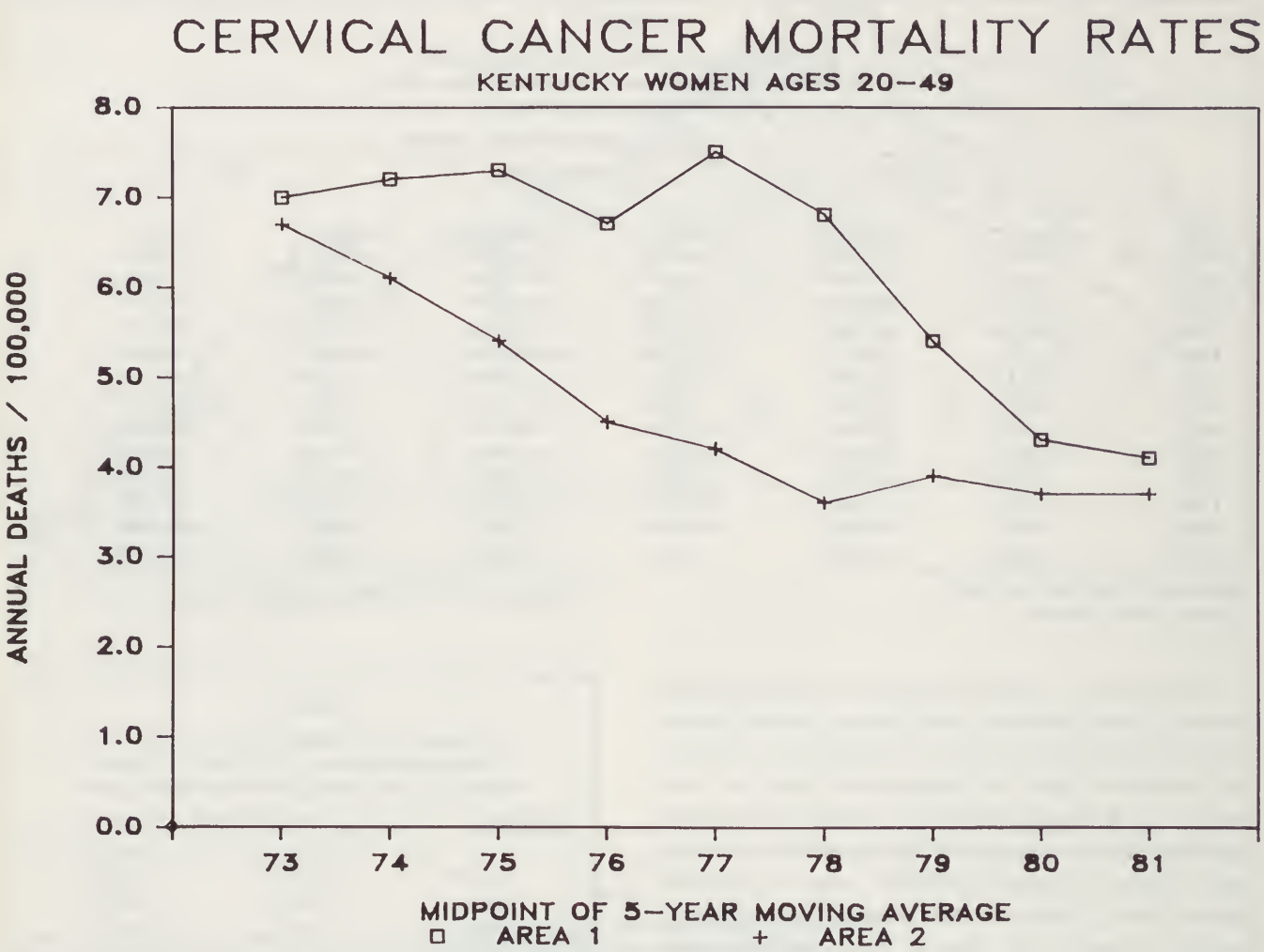


Fig 2.: Five-year moving average cervical cancer mortality rates for Kentucky women age 20-49, by socioeconomic area.

A hospital-based study of 97 women with newly-diagnosed invasive cervical cancer in New York found that 52% of the cases arose in women who had never had a Pap smear.[20] The authors noted that 73% of the unscreened women had received ambulatory medical care during the five years prior to diagnosis, however. Thus, missed opportunities for Pap smear screening probably contributed to the progression of disease to the invasive stage in these women. The New York findings were similar to those from Ontario where a hospital-based study of 212 patients with newly diagnosed invasive cervical cancer found that 68% reported having received no Pap smear during the five years preceding diagnosis.[15] This was true for an even more startling 81% of patients age 60 or more years.

A recent study of the impact of Pap smear screening on incidence rates of invasive cervical cancer in Sweden estimated that a screening system in which every woman received at least one smear every three years can reduce the incidence rate to between one and five cases per 100,000 women per year.[21] Based on the most recent differential between cervical cancer incidence and mortality rates (a ratio of 2.6 to 1),[22] this would suggest that mortality rates could be reduced to a level of between 0.4 and 1.9 deaths per 100,000 women per year, even with no improvement in treatment post-diagnosis (cf. Table 1).

The assurance of Pap smear screening for all women in Kentucky is a major challenge, but one which must be met if cervical cancer mortality rates are ever to

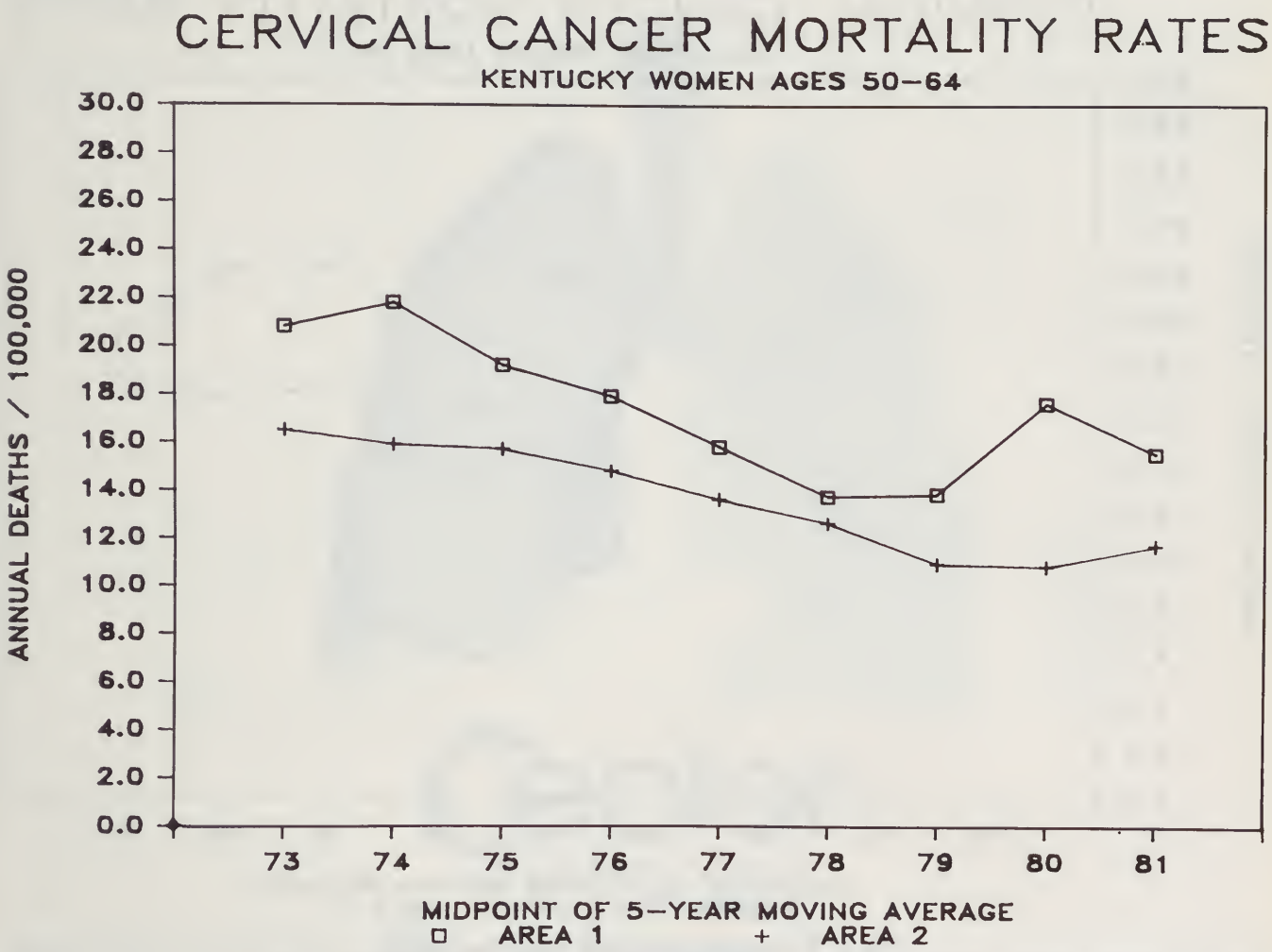


Fig 3.: Five-year moving average cervical cancer mortality rates for Kentucky women age 50-64, by socioeconomic area.

approach the very low level estimated above to be possible.

Based on the findings of studies which show that a majority of women with newly diagnosed invasive cervical cancer have never had a Pap smear[15,20] and that large proportions of poor and older women have never had a Pap smear,[19] those who are concerned with the optimum interval between Pap smears might well be more concerned with insuring that all women, including poor, rural women past childbearing age, receive at least one Pap smear. To a large extent this can probably be accomplished by routinely inquiring about the last Pap smear whenever a woman is being seen as an outpatient or hospitalized patient and strongly encouraging screening where indicated. This process is particularly important if the woman is from a lower socioeconomic (and thus a higher risk) group.

Although Kentucky's cervical cancer mortality rates have shown substantial improvement over the past several decades (Table 1), there is still much room for improvement. There may also be cause for concern due to the flattening of the mortality trend lines in recent years (Figures 2-4) for all age groups in Area 2 and for ages 50+ in both Areas. Increased effort by both private physicians and public health agencies to attempt to ensure that all Kentucky women receive Pap smears and appropriate follow-up will be necessary to further reduce cervical cancer mortality.

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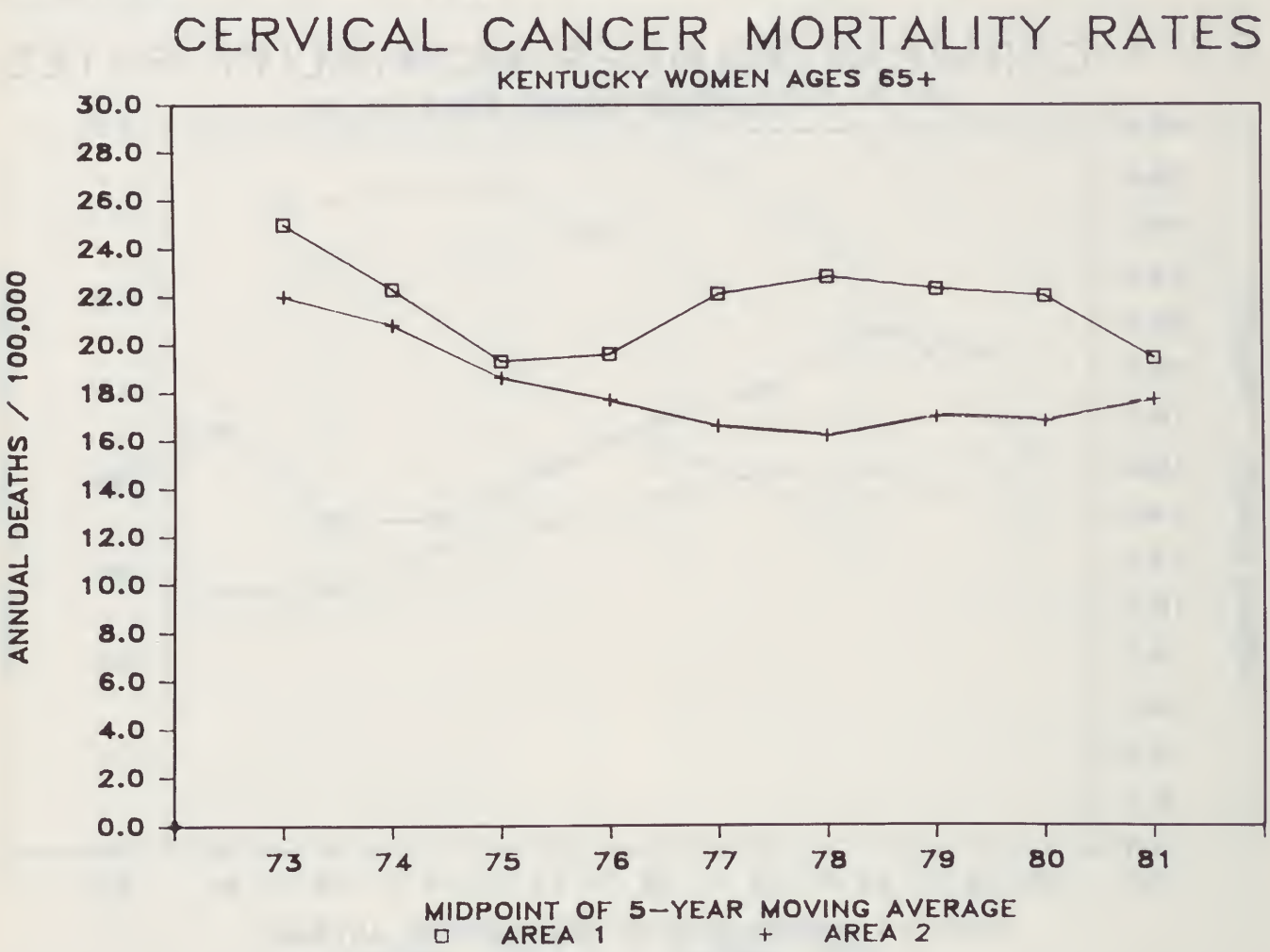
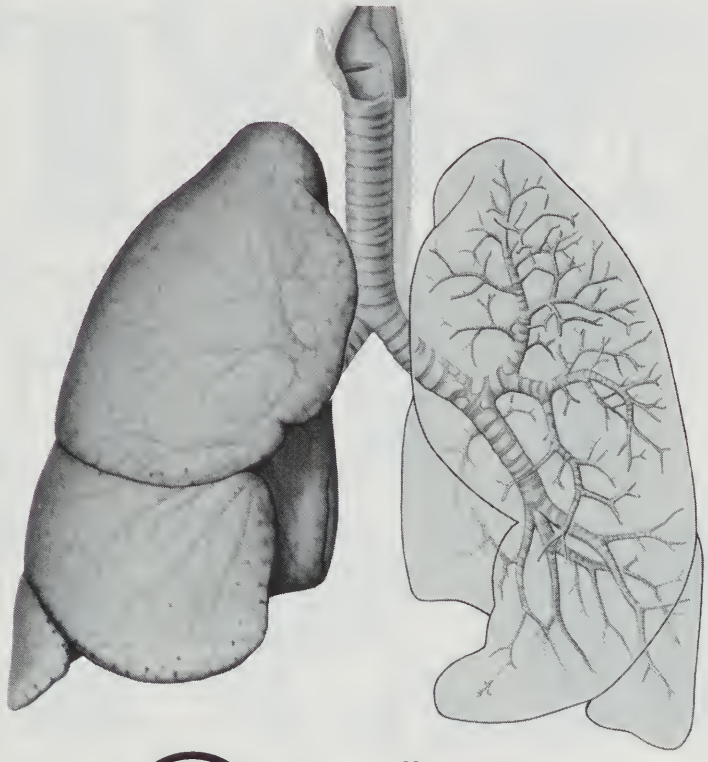


Fig 4.: Five-year moving average cervical cancer mortality rates for Kentucky women age 65 and over, by socioeconomic area.

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From the Department for Health Services, Cabinet for Human Resources, Frankfort, Kentucky 40621. ***Acknowledgements: The authors are thankful to Joyce Bothe and Dr. Carl Spurlock for Technical Assistance, Alma Jones and Dr. Barry Wainscott for manuscript review and Pamela Thurman for manuscript preparation.***

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H. influenzae, *H. influenzae*, *S. pneumoniae*, *S. pyogenes*
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — *Pregnancy Category B* — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[D617B2R]

Note: Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); In Patient-Pak™ unit-of-use bottles of 100.

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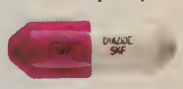
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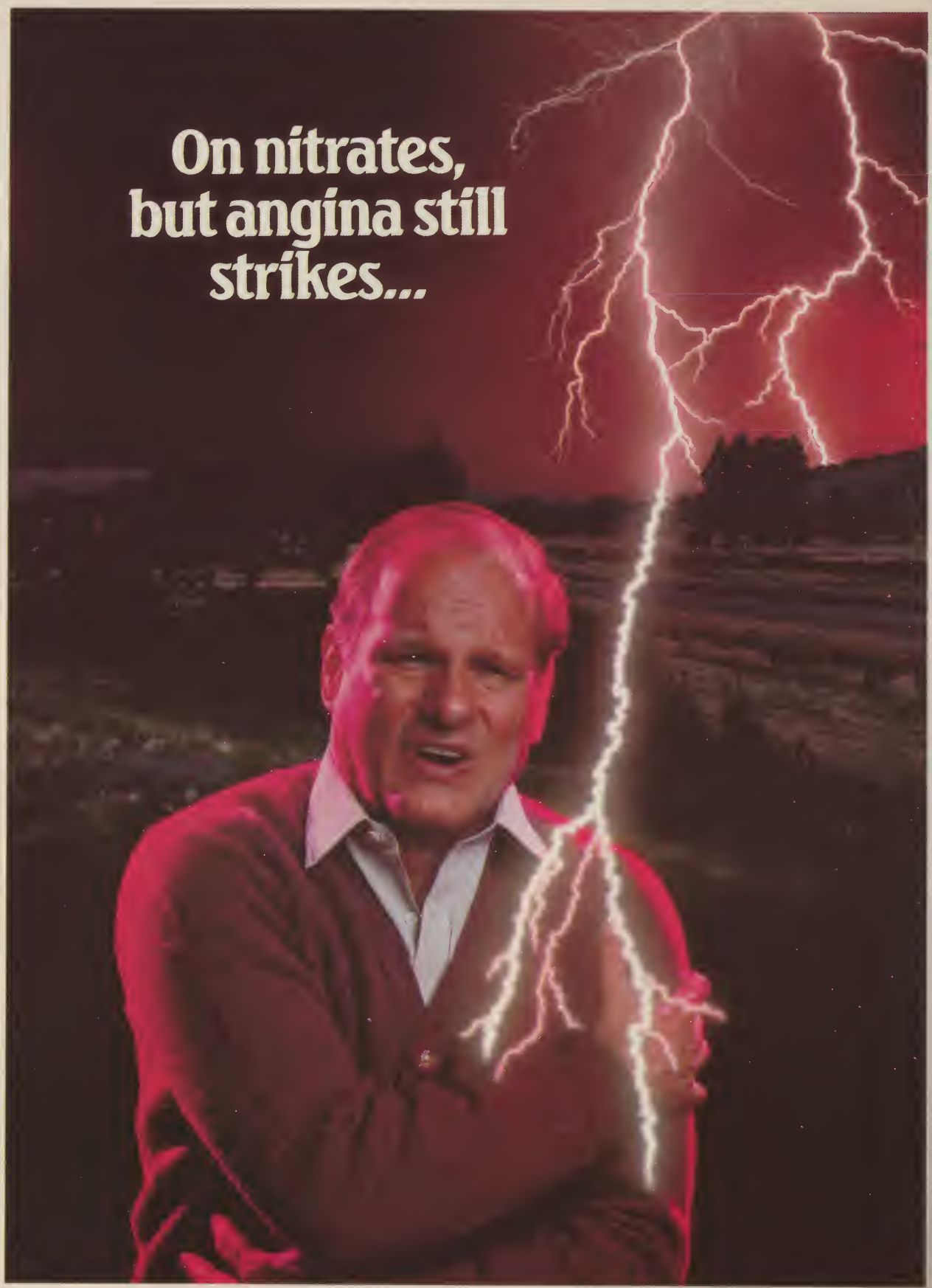


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Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction <30%) or moderate to severe symptoms of cardiac failure. Control milder heart failure with optimum digitalization and/or diuretics before ISOPTIN is used. ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild, and controlled by decrease in ISOPTIN dose). Occasional elevations of liver enzymes have been reported; patients receiving ISOPTIN should have liver enzymes monitored periodically. Patients with atrial flutter/fibrillation and an accessory AV pathway (e.g., W-P-W or L-G-L syndromes) may develop a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion. AV block may occur (3rd degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema, and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with ISOPTIN. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, patients should be monitored closely. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function or in patients who have also recently received methyldopa. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patient carefully monitored. ISOPTIN may have an additive hypotensive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C:* There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR<50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%). The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: confusion, paresthesia, insomnia, somnolence, equilibrium disorders, blurred vision, syncope, muscle cramps, shakiness, claudication, hair loss, maculae, and spotty menstruation. Overall continuation rate of 94.5% in 1,166 patients. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in 80 mg and 120 mg sugar-coated tablets. July 1982 2068

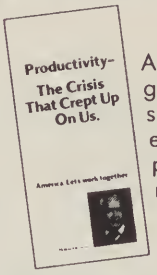
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EDITORIAL

Paradise

OU allez vous? Au paradis.
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French folk song

"Jesus leaves to other kings such things as castles, gold, and wealth. But does what no other king can do - he forgives sin and removes the fear of death."

Martin Luther

There have been times when I think we do not desire heaven; but more often I find myself wondering whether, in our heart of hearts, we have ever desired anything else...It is the secret signature of each soul, the incommunicable and unappeasable want, the thing we desired before we met our wives or made our friends or chose our work, and which we shall still desire on our deathbeds, when the mind no longer knows wife or friend or work...

All your life an unattainable ecstasy has hovered just beyond the grasp of your consciousness. The day is coming when you will wake to find, beyond all hope, that you have attained it, or else, that it was within your reach and you have lost it forever.

C.S. Lewis

If there is a paradise after death, why are we as patients and as doctors so afraid of death and reluctant to discuss it? The fear of death is a natural result of our instinct of self-preservation and as such is inherent in the human condition. But the discussion of death, the facing of the inevitability by the doctor and the patient is lacking in the practice of 20th Century medicine.

Part of the reason for this lies in the advances in modern medicine in the last 40 years: antibiotics, sophisticated anesthesia and surgery, and a beginning control and understanding of the immune system. These innovations have indeed saved lives and increased longevity in many situations. However, it is obvious that medicine is less than victorious in many areas and ultimately the biblical "three score and ten or by reason of strength four score" still sets a realistic limit for most of us.

As doctors we have an obligation to allow the patient the freedom of ventilating his fears and must not suppress this tendency. We must also be as forthright without being cruel with each patient about his prognosis. This is a delicate uncertain area at best. However it must be faced and not shunned by the doctor. And the patient must be given every assurance that the doctor will remain with him in his terminal illness. Sometimes matters can be conveyed in a few words or even in the daily routine of visits and reassurance. Sometimes it may take days or weeks to surface and become a matter of discussion. Each situation is different and there are no precise guidelines.

If we as doctors can face our own mortality and come to some sort of reapproachment with our own ultimate demise, it becomes less threatening to approach these issues with the patient.

We are all companions on a journey. It is our duty to make that journey a little easier for our patients.

Paul C. Grider, Jr., M.D.



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See following page for brief summary of prescribing information.

SORBITRATE®
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Please consult full prescribing information before use. A summary follows:

INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed.

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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SPECIAL ARTICLE

Issues of Health Care in Kentucky: Hospital and Physician Advertising

PHILLIP W. ROEDER AND ELMER T. WHITLER

The authors examine the attitudes of Kentuckians toward hospital and physician advertising and the implications of such behavior for the health care system. The data for this analysis were obtained through a statewide random telephone survey of 743 adults conducted by the University of Kentucky. The majority of Kentuckians favor hospitals advertising, but they are opposed to physicians advertising. The results indicate that most attention is given to television advertising and advertisements promising quick attention and admission. Kentuckians are, like people throughout the nation, increasingly making the decision about the hospital to which they will be admitted. In fact over a third indicated they would change physicians to be admitted to the hospital of their choice. These findings suggest possible important changes in the traditional patient-physician relationship in choosing the hospital in non-emergency admissions, and they raise ethical implications about trends in hospital care about which physicians should be concerned.

As part of an ongoing project in analyzing health care policy and developing a health information system, the Martin School of Public Administration recently analyzed issues of hospital and physician advertising using data from the Fall 1984, UK-SRC statewide survey. This effort continues research on access to care,[1] impact of organizational and technological changes in health care, issues of reimbursement and payment for services, trends in increasing alternatives to hospitalization, the growing role of for-profit organizations, and the projected over-supply of physicians.

Previously, in the fall 1983 survey, issues of access to care, insurance coverage, changes in Medicaid policies, and who should be responsible for paying for the health care of the poor were examined. In this later survey we focus on another important dimension of health care—hospital and physician advertising.

Hospital and Physician Advertising

The marketing of hospital and physician services has been a hotly debated topic for nearly 15 years.[2] Despite the controversy surrounding this activity, most large hospitals (public and private) in Kentucky and other states are actively engaged in marketing activities, including the use of advertising, patient targeting, and public relations.[3] Physicians in Kentucky have yet to become as active in direct marketing as have these hospitals; however, many analysts believe it is only a matter of time before many physicians will begin to employ these more direct marketing techniques to attract patients and build medical practices. It is thought that physicians will be impelled toward this course of action by an oversupply of their profession (which is projected as early as 1985 for many medical specialties) and by a new challenge from the for-profit hospital chains to the autonomy physicians previously experienced in influencing the flow of patients.[4,5,6,7] In this paper, the major ethical, professional, and policy implications of arguments relating to hospital marketing and advertising will be briefly considered and survey data on the perceptions and attitudes of Kentuckians towards these trends will be presented.

Arguments "for" and "against" Hospital Marketing

Advocates of hospital marketing and advertising are quite common these days in the professional hospital literature. Many of these advocates simply focus on the benefits of marketing and advertising to individual hospitals. Creating images of hospitals as pleasant and attractive (even exciting, perhaps, if you're not too ill) places to spend a few days is seen as a way of attracting "desirable" patients or "customers."[4,8] These desirable patients are the ones who have full-coverage health insurance and who have relatively uncomplicated illnesses. These are the patients the hospitals are told they should be "competing for." It is argued that hospitals must get a sufficient share of these patients to survive in an increasingly competitive market or to make their profit margin.[2] A sometimes unstated assumption of these advocates is that, if you are "unfortunate" enough to be a teaching hospital or an inner-city hospital with a large proportion of patients whose insurance is either inadequate or nonexistent, you are faced with the need to quickly implement an aggressive "demarketing" strategy for these patients.[9] In short, the pro-marketing and advertising arguments emphasize identifying and attracting (targeting) patients whose insurance or other resources will pay the full cost of their care.

The basic argument against hospitals marketing and advertising their services is that hospitals should be devoted to identifying needs for hospitals' services and striving to meet these needs through the provisions of quality services to everyone, regardless of ability to pay. This is an ideal that has been under siege with the threats to the financial viability of many hospitals brought on by declines in utilization. Decreasing utilization rates have been attributed to poor economic conditions, increased alternatives to hospitalization (such as outpatient surgery), competition from the new for-profit chains, and an excess of recently built hospital beds. Critics of the marketing approach to hospital care believe the hospital is no longer an economically innocent institution, and they are convinced that its highly vaunted position of being a "special institution" in society devoted to caring and healing is at risk with a growing number of Americans.

One might wonder at this point how people feel about hospital advertising. Our poll results show that 65% of Kentuckians "favor" hospitals advertising. These results also indicate Kentuckians are attending to the mass media appeals of hospital advertising. Over half (55%) reported seeing such advertisements on television, 26% had heard them on radio, 41% had read them in newspapers, and 19% had received mail advertising from hospitals. These figures suggest the volume and intensity of advertising efforts by hospitals across the State.

Some surveys conducted in other states indicate that from 43 to 61% of those interviewed indicated they, themselves, made the decision about the hospital to which they would be admitted.[4] These results suggest that consumers are seriously involved in selecting the hospital where they will be treated.[4,10] The results of our Kentucky survey are consistent with these findings and suggest that patients are likely to be even more insistent with their doctors about this decision in the future. Fifty-three percent said they would ask their doctor to "admit them to the hospital they prefer even if the doctor suggested another hospital." Nearly 36% indicated they "would seek another physician, if their current physician refused or was unable to admit them to the hospital of their choice." These results suggest a dramatic shift from the traditional pattern in which the physician almost exclusively determined the hospital to which the patient would be admitted.

These facts should be encouraging to advocates of hospital advertising. The majority of consumers indicate they will make the decision about the hospital to which they will be admitted, and they are attentive to the various forms of hospital advertising, although they give most consideration to television (50%) and least attention (6%) to mailed advertisements. Newspapers were second (18%) and radio was third (11%) in capturing the attention of Kentuckians for hospital advertising.

Content of Hospital Advertising

Some important variation is noted in the responses of those polled to the content of hospital advertising in Kentucky. Those interviewed indicated the most intense interest in advertising which "promises quick attention and admission" (46%), "information on the hospital's medical equipment and technology" (44%), and "descriptions of available services" (42%). Advertising emphasizing "religious affiliation" captured the least attention of those interviewed, with only 12% reporting they were "very interested" and 23% reporting they were "somewhat interested" in such content. Substantially more interest was expressed for advertising

content on the profit status of the hospital, with 25% "very interested" and 32% "somewhat interested in "whether the hospital is non-profit, for-profit, or a public hospital."

Perhaps the most significant finding in these results is that nearly 84% of those polled indicated they "would pay more attention to hospital advertising if it included information about the cost of services and hospital admissions." This finding indicates a significant potential price consciousness among members of the public regarding hospital care. This suggests an area which hospitals might exploit through advertising to achieve a competitive advantage. To achieve such an advantage would of course require that the care be less costly, while at the same time being perceived by consumers as equal in quality.

Physician Advertising

While Kentuckians seem to have moved from traditional values regarding hospital advertising and norms associated with the selection of a hospital, they remain more conservative about physicians advertising. Surveys in Kentucky and elsewhere have shown that the majority of physicians (87% Texas in) were themselves opposed to physicians advertising.[5,11] Physicians who take this position normally express concern about injuring the highly positive and trusting image the public has of medical doctors, the adverse impact of advertising on the peer referral system of patients among physicians, and the possibility of misleading information that would induce the public to choose physicians according to the quality of their advertising and not their ability. Only 45% of Kentuckians said they "favor" physicians advertising "as some hospitals and lawyers are now doing."

Conclusion

It seems very likely that hospital advertising will continue and expand. Whether it develops to the point of "marketing warfare," as has been suggested by one well known analyst, is still to be determined.[12] Our results strongly suggest that the public's choice of hospitals can be influenced by advertising and other marketing efforts. Whether this will help contain the rise on health care costs through price-competition as some have suggested is uncertain.[6,13] Also of concern is the impact of advertising on the access to care by the poor and very sick, patients who are not the targets of the new marketing strategies.

The negative attitudes of physicians toward advertising their profession and the nearly even division among Kentuckians on the issue means that it will be sometime into the future before we know whether the pressures cited previously will induce physicians to break rank and begin to advertise in a manner similar to hospitals and other health providers.

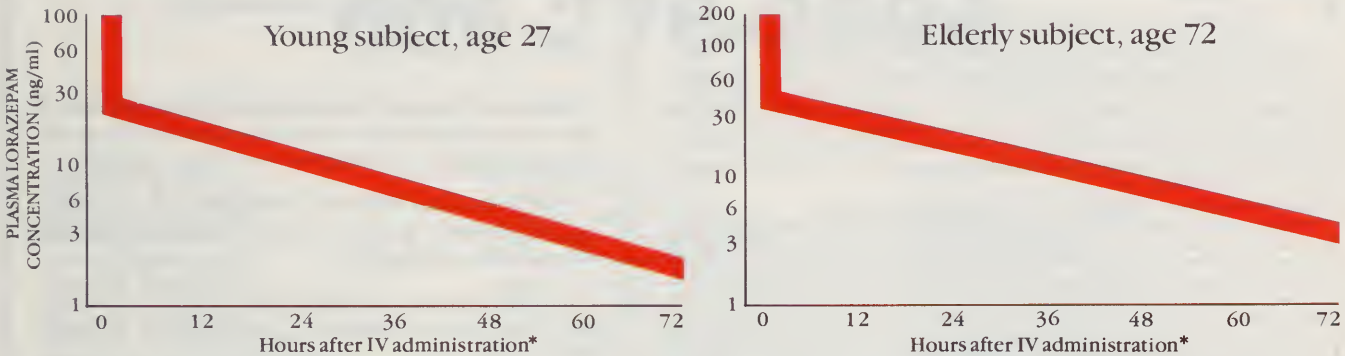
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1. Greenblatt DJ: Clinical study, pharmacokinetics and bioavailability in the elderly, Ativan® (lorazepam). Data on file, Wyeth Laboratories.

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DISTINCTIVE DESIGN 0.5, 1.0 and 2.0 mg

Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

Ativan® (IV) for Anxiety (lorazepam)

DOSAGE: Individualize for maximum beneficial effects. Increase dose gradually when needed, giving higher evening dose before increasing daytime doses. Anxiety, usually 2-3mg/day given b.i.d. or t.i.d.; dosage may vary from 1 to 10mg/day in divided doses. For elderly or debilitated, initially 1-2mg/day; insomnia due to anxiety or transient situational stress, 2-4mg h.s.

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How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

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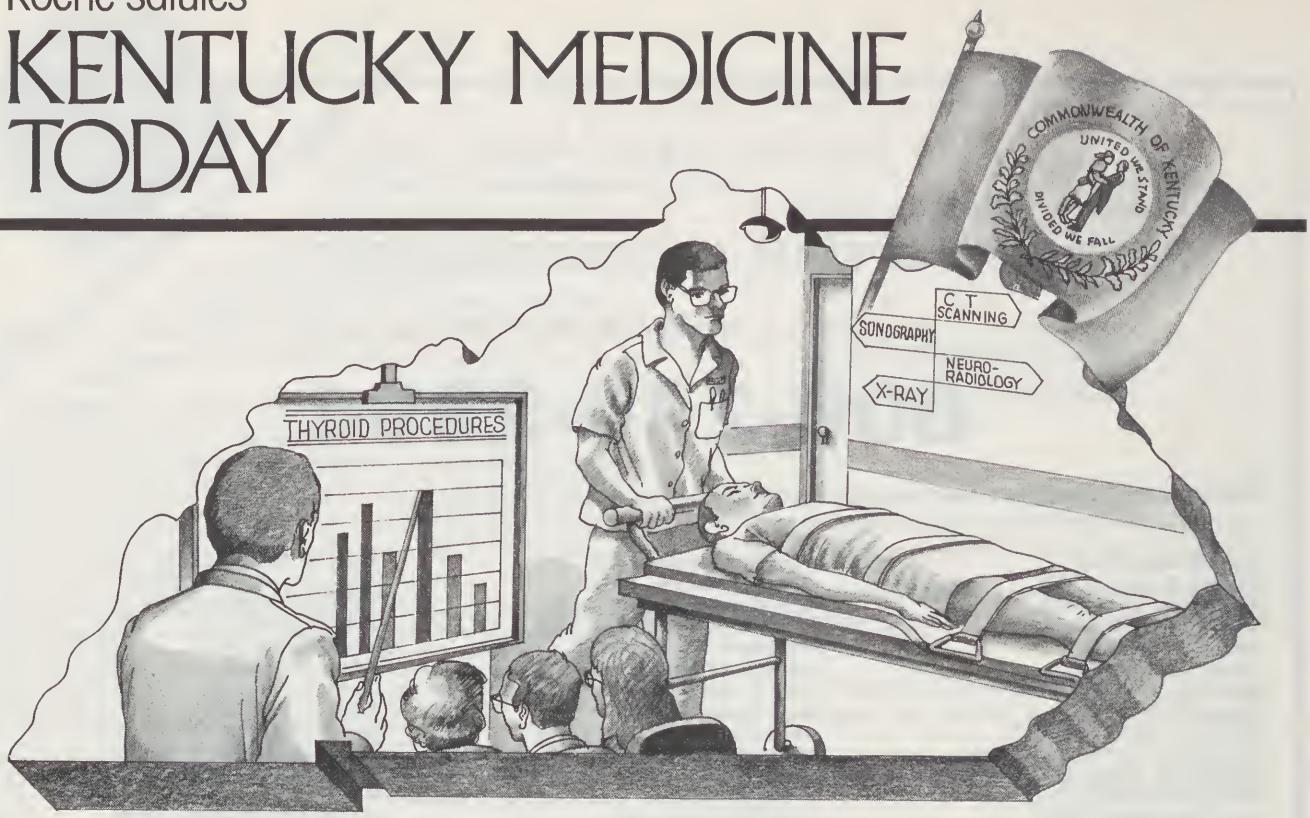
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KENTUCKY MEDICINE TODAY



Thyroid surgery subject of study covering 24 years

In a dedicated effort to assess early and late complications after thyroid operations, members of the Department of Surgery, University of Louisville School of Medicine, recently analyzed records of 407 operative procedures going back to 1958. Overall, their findings were reassuringly positive. A mortality rate of 0.7% was found and attributed to coexisting disease, advanced patient age and delayed treatment. Permanent hypoparathyroidism, probably related to disrupted blood supply, appeared in only 0.9% of cases.[1] This and other statistically significant data indicate that operative procedures on the thyroid carry an acceptably low morbidity and mortality—findings that are a Kentucky contribution to medical science.

See-through stretcher eliminates dangerous transfers

A complete radiographic evaluation of a spinal fracture usually necessitates numerous transfers of the patient between the stretcher and various x-ray and computed tomography tables. Doctors at Audubon Hospital in Louisville reasoned that these potentially dangerous transfers could be eliminated if they had a radiolucent stretcher. So they set to work and developed exactly what was needed: a stretcher strong enough so that the patient's spine is well supported and radiolucent enough so as not to degrade radiographic images. The patient can remain in the same position during the entire radiographic examination of a spinal fracture, including plain x-rays and computed tomographic and myelographic studies.[2] Further, the team designed a traction-device attachment making it possible to apply traction during myelographic examination or to accomplish a closed reduction of a cervical fracture. By obviating the need for accessory traction devices, they have produced a self-contained unit for such procedures.

The strength and radiolucency of the stretcher are assured by its construction with newly developed organic materials—a rigid core of polyimide foam and a carbon fiber-epoxy resin (or graphite-epoxy) material for the outer skins of the board. Four nylon straps with plastic buckles are used to secure the patient to the stretcher across the shins, thighs, hips and torso. Plastic handles attached to these straps on each side are used to lift the stretcher. Eight polyurethane stops on the undersurface hug the edge of the CT cradle to prevent lateral and vertical movement during scanning.

This ingenious self-contained unit makes things easier for all at Audubon, including orderlies, nurses, physicians and, especially, the patients, who now are taken off the stretcher only once—when they are placed on an operating table, a bed or a fracture frame.

References: 1. Max MH, Scherm M, Bland KI: *South Med J 76*:977-980, Aug 1983. **2.** Jelsma RK, *et al*: *Surg Neurol 22*:167-172, Aug 1984.

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A rational approach, combining
- The standard antidepressant: amitriptyline
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Marked improvement often occurs as early as the first week

Headache, insomnia or GI upsets associated with mixed depression and anxiety often respond quickly

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In moderate depression and anxiety

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Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) Ⓒ IV

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Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓒ IV

Easier to remember... easier to prescribe

*Feighner JP, *et al: Psychopharmacology 61*:217-225, Mar 22, 1979.

Please see summary of product information on following page.

LIMBITROL® Ⓝ Tranquilizer-Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise far amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal far chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.
Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: *Double strength (DS) Tablets,* white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets,* blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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The Kentucky Surgical Society will welcome its guest of honor, Frank C. Spencer, on the 17th and 18th of May, 1985, at its Annual Meeting at the Capitol Plaza Hotel in Frankfort, Kentucky.

Dr. Spencer is professor and chairman of the Department of Surgery at New York University. He is one of the world's outstanding cardiovascular and thoracic surgeons. Dr. Spencer was previously professor and chairman of the Department of Surgery at the University of Kentucky, and subsequently he is looking forward to seeing many of his residents, friends, and associates.

For further information, contact William Jernigan, M.D., at the Trover Clinic, Madisonville, Kentucky 42431. William T. Rumage, Jr., of Louisville is the president of the Kentucky Surgical Society.

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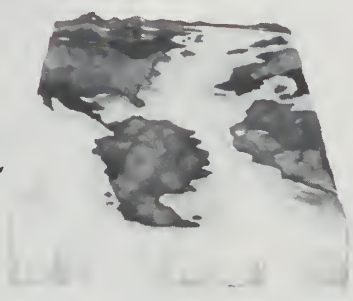
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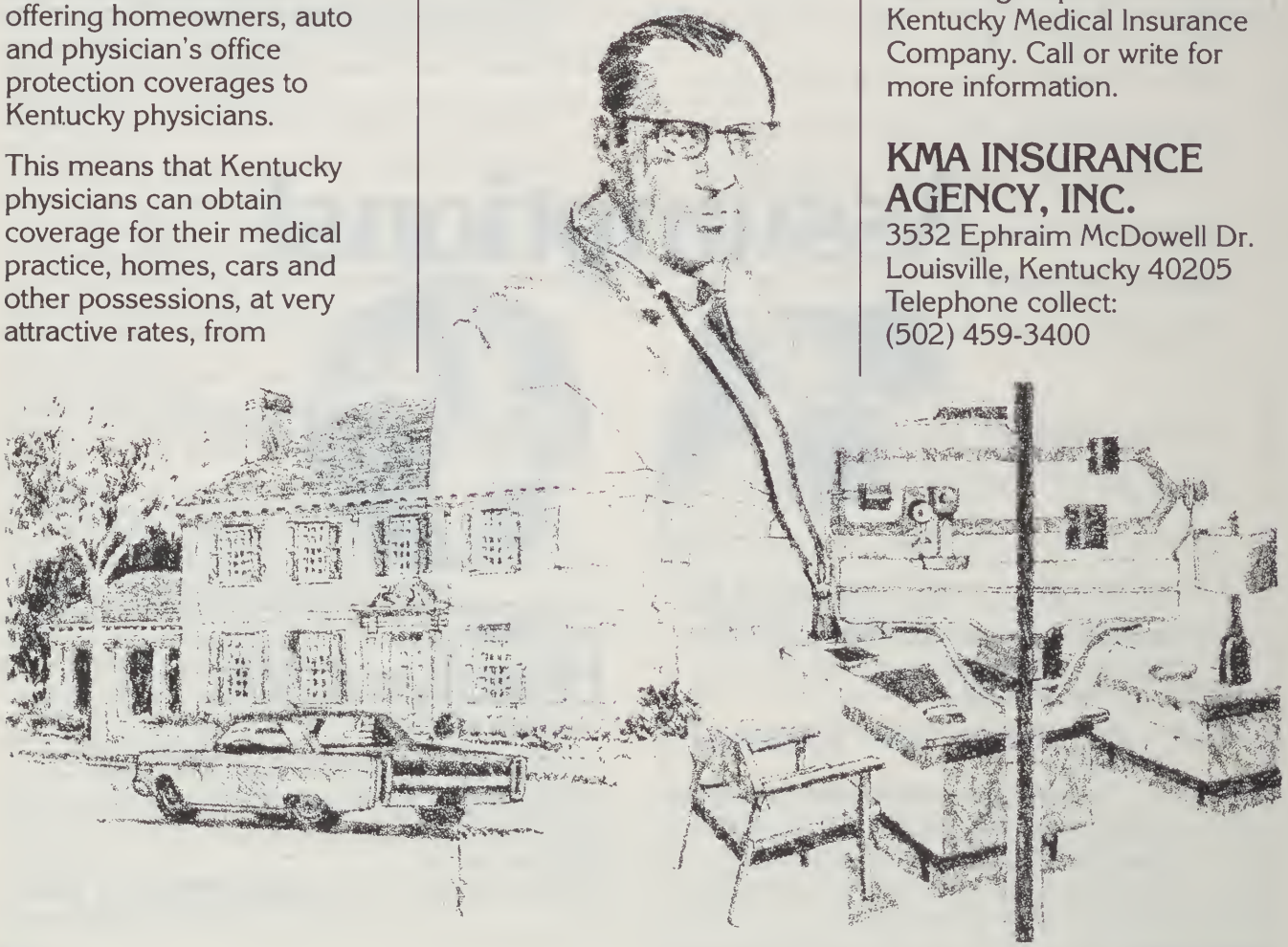
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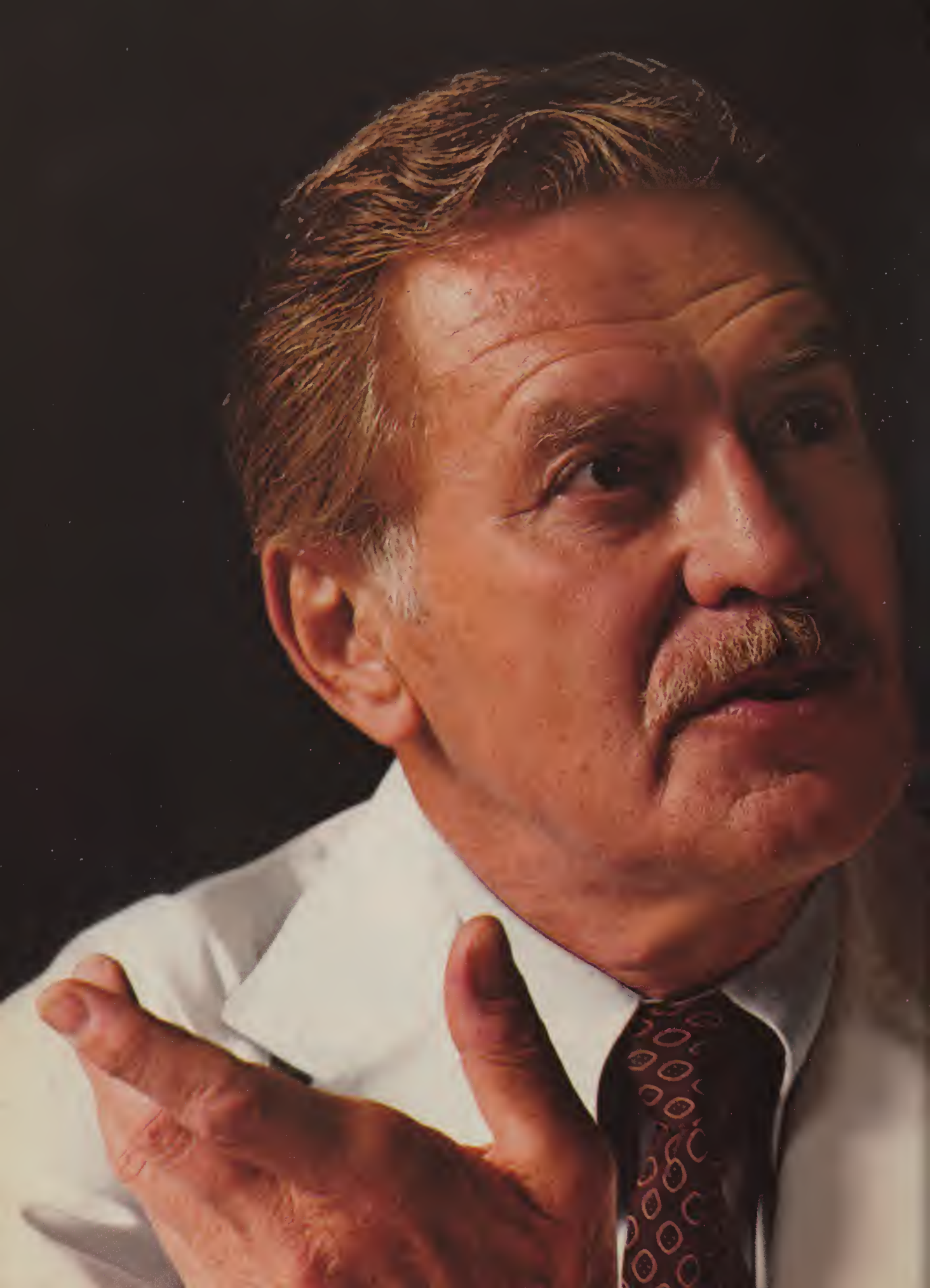
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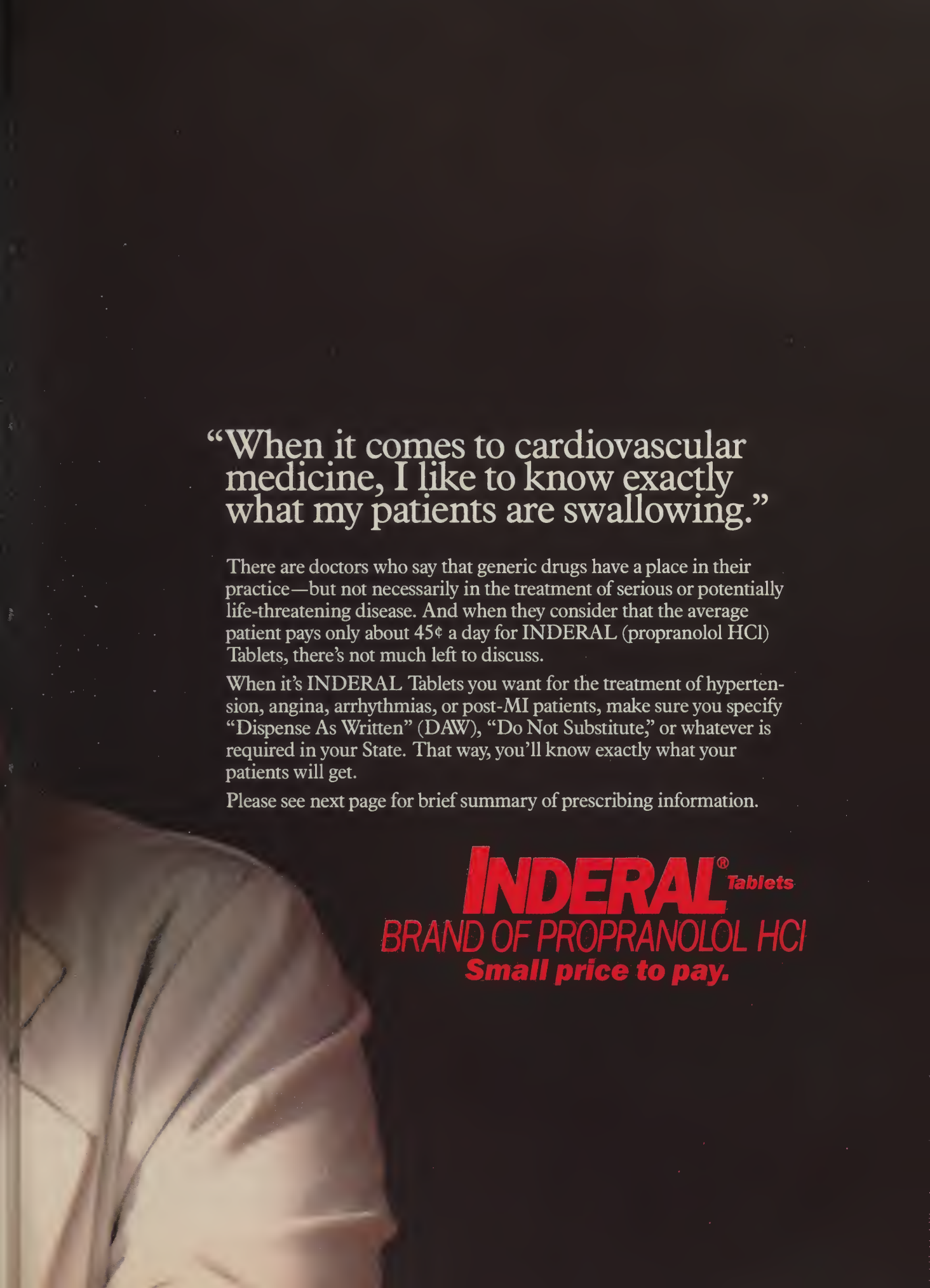
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INDERAL® (propranolol hydrochloride) Tablets

CONTRAINDICATIONS

INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.

WARNINGS

CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced over at least a few weeks and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL, like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

PRECAUTIONS

General: Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that INDERAL (propranolol hydrochloride) may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy: Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: INDERAL is excreted in human milk. Caution should be exercised when INDERAL is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia; congestive heart failure; intensification of AV block, hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

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P.R.N.
Practice Relations Notes

What's Happening to Private Practice?

The KMA Committee to Investigate Changing Trends in Medicine has studied this question at length during its 2½ years of existence and has reported its findings to the House of Delegates and to the membership through publication of its final report in this *Journal* (see November 1984, p. 595). A number of factors have combined to create a change in medicine, particularly the traditional, fee-for-service private practice of medicine:

- Supply vs. demand
- Other modes of health care delivery, such as HMOs, PPOs, and IPAs
- Corporate-sponsored health care organizations, such as primary care centers and free-standing clinics
- Increased governmental regulations

New Member Service Initiated

The Kentucky Medical Association is committed to assist you, the KMA member, in recognizing the changes taking place in today's medical climate and in positioning yourself to emerge the better for them. As a physician, you have been highly trained for the practice of medicine through formal schooling, internship and residency. However, we are being told, especially from young physicians, that knowledge of practice management is too often obtained by trial and error. Increased competition among physicians is leading many practices today to think in "marketing" terms.

To that end, KMA will regularly publish "P.R.N.—Practice Relations Notes" as a service to its members.

P.R.N. Goals

We will, in future columns, report on trends in medicine, offer practical and useful ideas for solving office problems, outline methods for maintaining satisfied patients and attracting new patients and demonstrate how to apply basic marketing concepts to a medical practice. Topics such as "Ways to Increase Visibility," will provide tips on writing a patient information brochure and newsletter, as well as ideas for community involvement.

Other columns will deal with handling the telephone, patient attitude surveys, waiting rooms, referral tips and marketing strategies. We welcome your input in this new feature and urge you to contact us if you have any specific problem areas or ideas that have "worked for you" in the area of practice management.

Practice Management

Much of this inaugural column is devoted to letting you know what's going on in this area within the KMA and its wholly-owned subsidiary, KMCO—Kentucky Medical Management and Computer Operations. We think it's important that you know about resources now available from your company whose purpose it is to significantly enhance your ability to succeed in the increasingly competitive world of medicine. KMCO was created to provide reliable and economical advice and support in all phases of office management and automation efforts. The service is available to KMA members who desire assistance in:

- Practice Management
- Marketing & Market Research
- Computer & Financial Audits
- Staff Development
- Billing Procedures
- Internal Communications & Analysis
- Medical Records Organization
- Facilities & Layout Consultation

KMCO Staff can meet with the physician and his staff to develop a more productive business office. A written proposal includes a summary of work completed and recommendations for ongoing action. More than 50 physicians have used the consultative services of KMCO since its inception. Clients include solo practitioners, as well as large clinics throughout the state. Physicians are requesting help in widely divergent areas, but one trend is clear: each has a common need for a market plan.

Charles C. Smith, Jr., M.D.
KMA President and Chairman,
Committee to Investigate Changing Trends in Medicine

"P.R.N." is edited by the KMA Member Services Department. Please direct any inquiries or specific problems to them at 3532 Ephraim McDowell Drive, Louisville, KY 40205.

In Memoriam

STANLEY E. SMITH, M.D.
Louisville
1917 - 1984

Stanley E. Smith, a Louisville family practitioner for 33 years, died Christmas Eve Day, 1984, from coronary artery disease. A native of Plattsburgh, New York, he was a 1938 graduate of Cornell University and a 1942 graduate of Albany Medical College. Discharged from the United States Army Medical Corps as a major, he had served in several European campaigns, was twice captured by the Nazis and participated in the liberation of Mauthausen Concentration Camp in Austria. Marriage to Evelyn Glazer in 1946 brought him to Louisville. For many years he practiced on Preston Street in close proximity to St. Joseph's Infirmary where he was a staff member (as well as St. Anthony's, Methodist, Sts. Mary and Elizabeth, Jewish and Baptist hospitals). For over a quarter of a century, he was a collegue of and practitioner with many of the elder Statesmen of Louisville Medicine, most of whom are now retired or deceased. He dearly loved medicine and caring for people. In concert with his active medical career, including membership in the Jefferson County Medical Society, KMA and AMA, he was a devoted and loving husband and father with active interests in sports, travel and community affairs. His short retirement was marred by failing health and infirmity. He is survived by his wife, a son, Dr. Samuel Smith of Bowling Green, KY, two daughters, Terry Price of Louisville and Susan Linder of Washington, D.C., a brother, Dr. Harold Michael-Smith of New York City, a sister, Elaine Fieden of Mamaroneck, New York, and five grandchildren.

Samuel A. Smith, M.D.

CARL HENRY, M.D.
Owensboro
1919-1984

Carl Henry, M.D., a neurologist and psychiatrist, died in November, 1984. Doctor Henry was a 1952 graduate of the University of Louisville School of Medicine and had been a KMA member since 1966.

JAMES LEVI SALMON, M.D.
Madisonville
1905-1984

James L. Salmon, M.D., a general practitioner, died December 1, 1984. A 1932 graduate of the Vanderbilt University School of Medicine, Doctor Salmon had been a member of the KMA since 1952.

ROBERT PARKS OSBURN, M.D.
Louisville
1910-1984

Robert P. Osburn, M.D., died December 24, 1984. He was a general practitioner and a 1935 graduate of the University of Louisville School of Medicine. Doctor Osburn had been a member of the KMA since 1952.

ROBERT P. BERGNER, M.D.
Louisville
1919-1984

Robert P. Bergner, M.D., an anesthesiologist, died December 28, 1984. He was a former head of the department of anesthesiology at the University of Louisville Medical School and at the old General Hospital. A 1944 graduate of Tufts College Medical School, Doctor Bergner had been a member of the KMA since 1952.

WILLIAM COOPER BUSCHEMEYER, M.D.
Louisville
1911-1985

William C. Buschemeyer, M.D., a retired internist, died January 9, 1985. Doctor Buschemeyer was a former clinical professor of medicine at the University of Louisville and also a diplomate of the American Board of Internal Medicine. He was a 1937 graduate of the University of Louisville School of Medicine and a life member of the KMA.

Application for Scientific Exhibits

1985 Annual Meeting — Kentucky Medical Association

Galt House — Louisville, Kentucky — October 1,2,3

1. Title of exhibit _____

2. Name(s) of exhibitor(s) _____

   Address _____

   Professional title _____

3. Institution if other than exhibitor _____

4. Amount of backwall footage required _____
   (The draped booth has 4' side walls. This footage should not be included in backwall footage required.)
   SHELF DESIRED? _____ (Table 2' deep X width of backwall footage) Electrical outlet desired _____

5. Will summary printed matter be available or obtainable for the interested physician? _____

6. Indicate sources of assistance provided to you in connection with this exhibit _____

   _____

7. Has this exhibit been displayed before? If so, when & where? _____

   _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____ _____
Signature of Applicant

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1985

- **KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.**
- **Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the George E. Fern Company, 328 Louisville Air Park, Louisville, Kentucky 40213.**
- ***Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.**
- **Transportation and erection costs are the responsibility of the exhibitor.**
- **Exhibit *must be attended* during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.**
- **Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.**
- **Exhibit must be dismantled and removed by 4:00 P.M., Thursday, October 3, 1985.**
- **Exhibit space is *strictly limited* to footage and space allotted. *No* exhibit may extend into the aisle.**
- **The Galt House and the Kentucky Medical Association or its agents cannot guarantee against loss or damage and will assume no liability for damages nor guarantee the exhibitor against loss of any kind. The exhibitor agrees, with the Association, to be responsible to the Galt House for damages that may occur as a result of the exhibitor's use of the *facility*.**

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category I credit.

Medical-Legal Seminar

The Kentucky Board of Medical Licensure, the Kentucky Medical Association and the continuing education programs of the Schools of Medicine and Law of the University of Louisville are sponsoring a seminar to be held May 23, 1985, on the Shelby Campus of the University of Louisville. The seminar will address the laws regarding peer review, malpractice, controlled substances, insurance (including Medicare and Medicaid), hospitals, brain death and other important topics relating to the practice of medicine. The seminar is geared toward physicians and features a distinguished roster of speakers. Those wishing to attend should complete the following registration form. For more information call the Medical Board at (502) 456-2220 or contact the CLE office at U of L as indicated below.

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Register ____space(s) as indicated at $75.00 each for a total of $ ____. A late charge of $5.00 will be added for those registering at the door or 48 hours prior to the seminar.

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POLICY

To cancel registration, a notice must be received 48 hours prior to the Seminar or your registration fee will not be refunded.

If you plan to register late, please call in advance to confirm the time and location.

MAIL TO:

Continuing Legal Education
Room 106, School of Law
University of Louisville
Louisville, Kentucky 40292
(502) 588-7806

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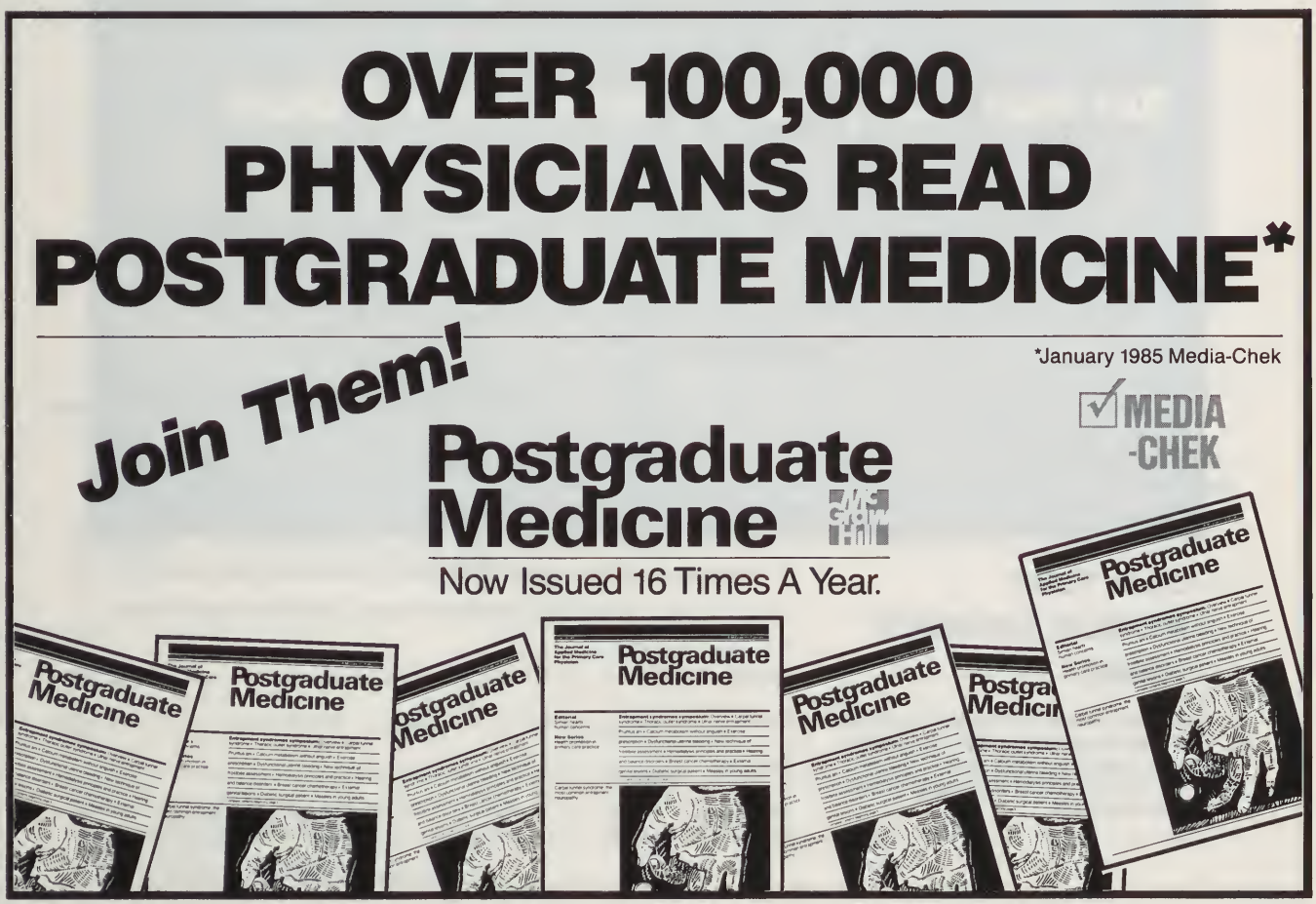
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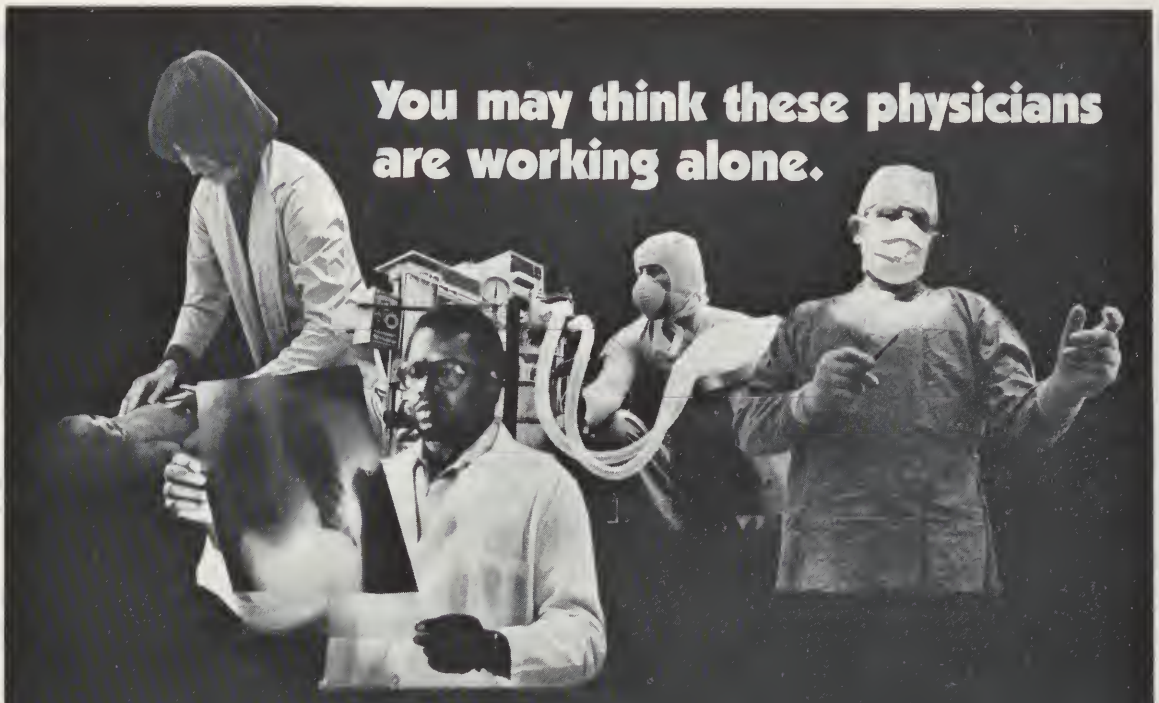
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The RKMSF is accepting applications from Kentucky medical students, who have been accepted at University of Kentucky or University of Louisville Medical School. The Fund provides a $5,000 loan per year to a recipient, who is willing to practice and reside in a rural county in Kentucky for one year for each loan received. Special forgiveness of loans is available to those who practice in one of Kentucky's critical counties.

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Anyone interested in applying for a scholarship should contact the RKMSF office at KMA Headquarters, 3532 Ephraim McDowell Drive, Louisville, KY 40205, or call 502-459-9790. Deadline for applications is April 15, 1985.





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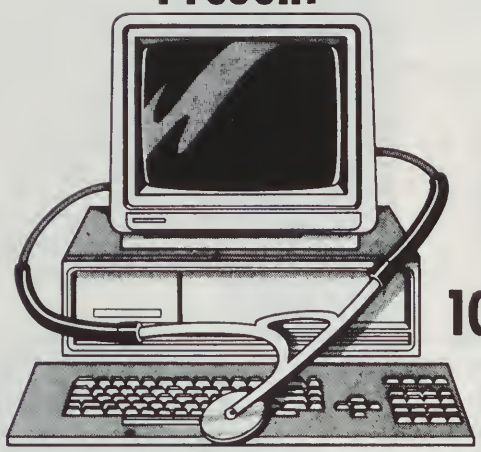
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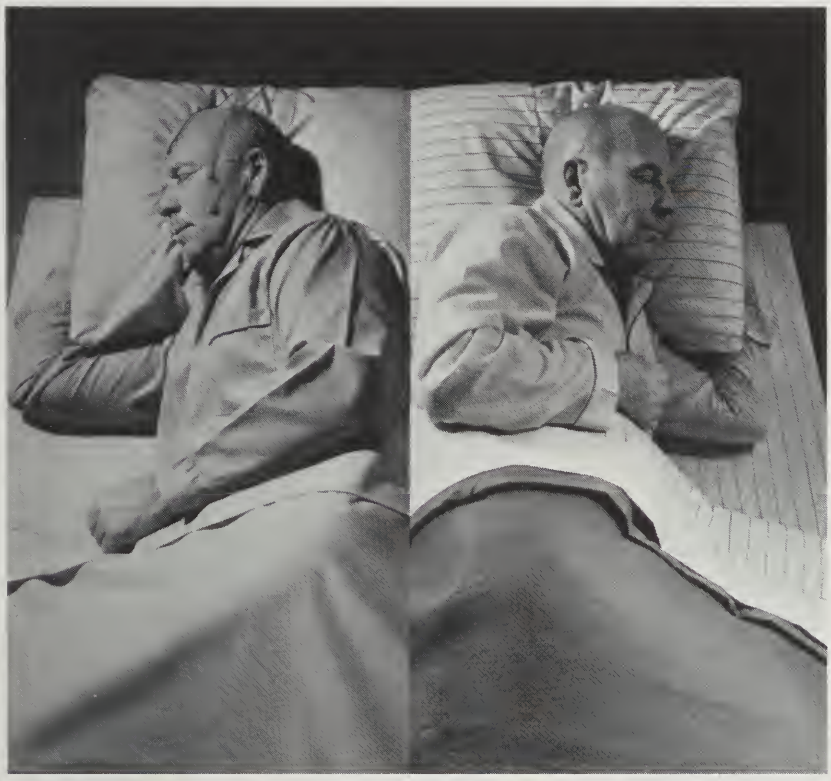
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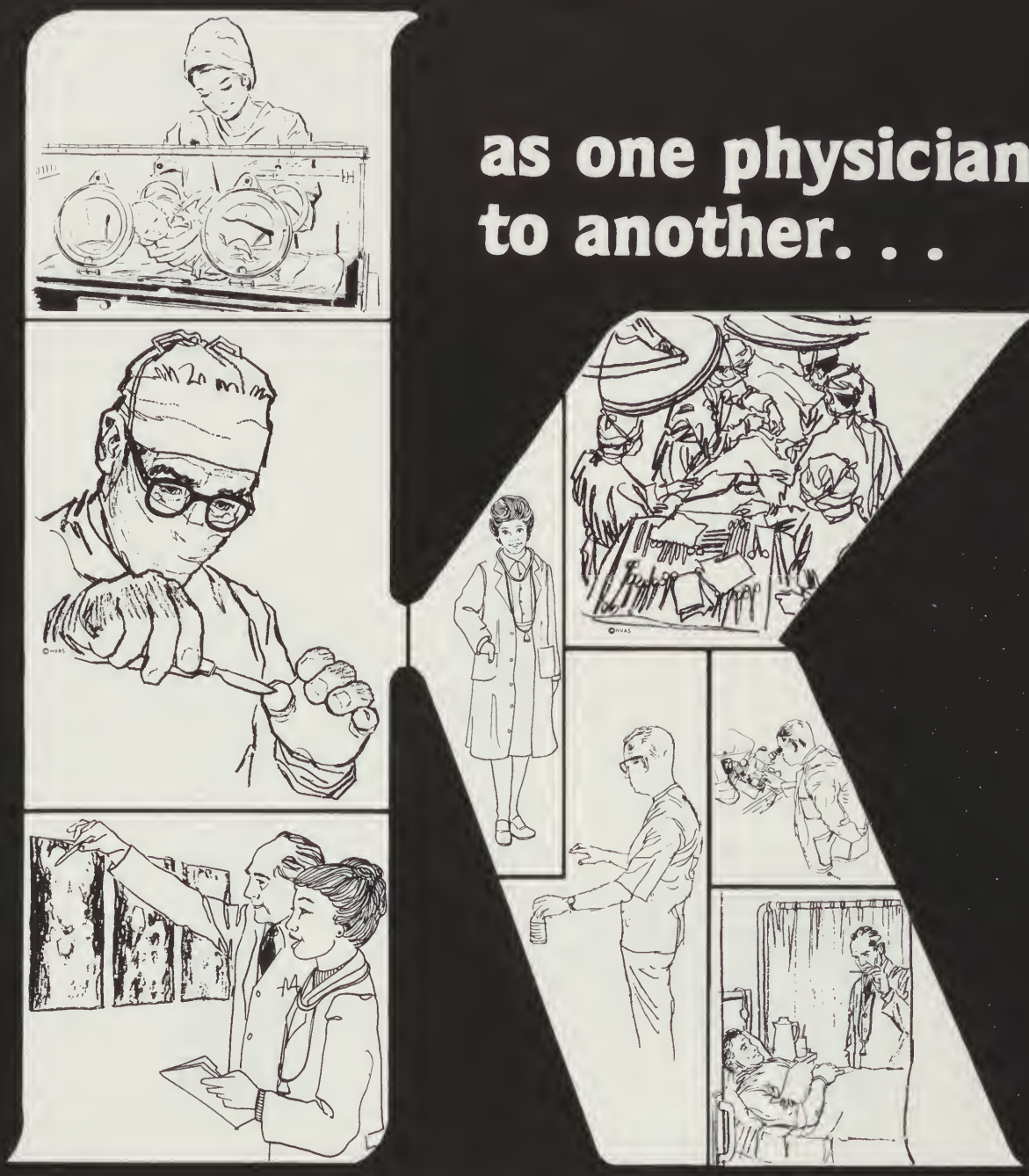
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PRESIDENT'S PAGE



Circling The Wagons

The coalition of government, business, and providers, who joined together in 1965 under congressional and presidential mandate to produce and deliver the finest health care system ever known, is unraveling. Left in the wake are the aged, near poor, and poor who now find that Government's promises are unfulfilled. Vestiges of remaining medical programs are being financed and pieced together through drastic reductions in funding to providers and rising deductibles for the aged. Government and business jumped ship after successfully convincing a lot of people that providers created the problem. As you recall, in 1965 the American Medical Association warned the public and the government that what has now happened was a likely event if controls were not placed on these programs.

The political climate has changed considerably for medicine. For years, the bureaucrats and liberals proposed reductions in the cost of health care by focusing upon provider reimbursement. However, under Democratic administrations, it was relatively easy for AMA to form a coalition of conservative Democrats and Republicans to thwart liberal legislation. However, along came Ronald Reagan with a Republican controlled Senate. President Reagan, who is to be commended for restoring the power and prestige of the Presidency, successfully controlled the House side through voting majorities within conservative Democrat and Republican ranks.

The President is using the budget deficit to reduce or dismantle the cost of government programs, particularly Medicare and Medicaid. Through DRG's, fee freezes, and mandatory assignments, the Administration penalizes the provider in order to achieve the vast majority of reductions. While these are short term answers, Government, even conservative governments, refuse to realistically face the problem and seek long-term solutions, particularly in the eligibility area.

Unfortunately, in these difficult times, organized medicine finds its role diminished. Many specialty groups hire their own national and state lobbyists and several have even started separate political action committees. In Washington and in several states, medicine occasionally has three or four positions on particular pieces of legislation. When you compound this problem with the fact that less than 50% of the physicians in the U.S. are AMA members, there is bound to be a significant impact upon the future of medical practice. Place yourself in the position of a Senator or Congressman whom you are lobbying. . . . . especially if you are an opponent of medicine. Can you imagine entering a CCU unit to render care to critical patients and be confronted with five to 10 different points of view and

recommendations for treatment?. . . . . all of whom believe they have the answer. . . Well. . . . . that's exactly what is happening in Washington to your Senator and Congressmen as they seek a clear understanding of medicine's position.

The fractionalization of medicine which has been always our greatest fear and the tool by which the British Government decimated the medical society and brought about socialized medicine, is alive and well in the U.S.

Disagreements over where and how medical care is delivered must take a backseat to a reality that we are in trouble. Professional jealousy within, and the wide range of health delivery services ranging from the individual practitioner, HMO's, PPO's, IPA's, to large clinics, could well serve as the Trojan Horse of American medicine. There is room for competition for all of the above practice patterns. However, the real danger occurs when the dollar becomes the major priority and a motive to gut your colleague.

In spite of our differences, common ground still exists. We should recognize that if we are to survive, we must be a unit regardless of internal conflicts. Secondly, quality of care is not a respecter of persons, and the patient and physician are the key components in the system. Finally, it is the duty of both providers and patients to jointly strive to protect the most basic of all medical freedoms, **choice**, the freedom to serve or to be served.

The door is still open, and we still have time. The public supports high quality care. This was recently reinforced by a public opinion poll which indicated that health costs rank in the "second 10" on issues of major importance to patients. Big industry, many of them making outrageous profits, along with several who are non tax paying corporations, would have you believe otherwise. In most cases, big business generated the problem by yielding to labor demands and now seeks to unload the cost and the problem on the public and providers.

Every physician should feel a moral obligation to support all levels of medicine from the county to the state to the AMA. A full functioning AMA, working in conjunction with state, county, and specialty societies, along with every physician's full participation in the Political Action Committee (PAC), is our best hope. Specialty societies play a vital and integral part within the profession, particularly in the scientific arena. However, individually, nothing can substitute for a united profession if we are to survive in the present day political climate. The danger of politicians isolating single interest groups and taking them one on one is already occurring on the state level and looms large on the national level. We need to speak as one voice—with one position. The only organization that still represents all physicians and all specialties is the AMA. Its survival is crucial if we are to have a future.

This article has not sought to provoke, but only to awaken. Fragmentation, isolation, and looking out for "one's" best interest is our achilles heel. We can't wish it away—but we can stand and fight the abuses that threaten our livelihoods and the future of the profession.

For now—circle the wagons and grab your best hold.

Fred C. Rainey, M.D.
AMA Delegate

Saber-Sheath Trachea

JOHN H. WOODRING, M.D. and TERRI L. DANIEL, M.D.

Saber-sheath trachea is defined as narrowing of the transverse diameter of the intrathoracic portion of the trachea such that the internal transverse diameter of the trachea is two-thirds or less than the internal antero-posterior diameter of the trachea at a level one centimeter above the aortic arch. This configuration of the trachea is highly specific for chronic obstructive pulmonary disease (95%), and is seen more often in chronic bronchitis than emphysema. Radiographically, saber-sheath trachea is frequently the only plain film abnormality in chronic obstructive pulmonary disease. This characteristic deformity of the trachea appears to be related to stress fractures of the tracheal cartilage as the result of chronic cough.

Saber-sheath deformity of the trachea was first described in detail by Greene and Lechner[1] in a group of elderly men with chronic obstructive pulmonary disease (COPD). By definition a saber-sheath trachea is present when the internal transverse diameter of the intrathoracic portion of the trachea is two-thirds or less of the internal anteroposterior diameter of the trachea at a level one centimeter above the aortic arch. This ratio is referred to by Greene as the tracheal index.[2]

Saber-sheath trachea appears to be strongly associated with chronic obstructive pulmonary disease. Greene,[2] in a study of 60 patients whose chest radiographs demonstrated a saber-sheath trachea (tracheal index 0.49 mean with range 0.25 - 0.67), found that 95% had clinical evidence of COPD with chronic bronchitis secondary to chronic tobacco use being the most common condition associated with saber-sheath trachea (80%). Fifty-five percent of the patients with saber-sheath trachea were found to have other radiographic findings of COPD (depressed diaphragmatic level, anterior bowing of the sternum, aerated lung visible beneath the cardiac silhouette on the frontal view, focal or multifocal pulmonary vascular attenuation, or bullous lung disease); however in 45% a saber-sheath configuration of the trachea was the only radiographic abnormality.[2]

Illustrative Cases

Case 1: The patient is a 55-year-old male tavern manager with a 100-pack-year smoking history. He has had a chronic cough, which for the past three years has been productive of sputum, and also complains of mild dyspnea on exertion. He has no previous history of neck trauma, tracheostomy, or mediastinal mass. Physical examination was remarkable only for an increased anteroposterior chest diameter.

A posteroanterior and lateral chest radiograph (Figure 1) are remarkable for an internal transverse tracheal diameter of 11 mm and an anteroposterior diameter of 24 mm (tracheal index 0.45) producing a saber-sheath configuration. No other radiographic findings of COPD such as overinflation, areas of vascular attentuation, tram lines or bullae were identified.

Pulmonary function testing revealed moderate airway obstruction with FVC of 3.19 L (69% predicted), FEV_1 1.66 L (49% predicted), MMEF 0.67 L/sec (20% predicted), and FEV_1FVC ratio of 51%. There was some response to the administration of bronchodilators. The final diagnosis was COPD most consistent with chronic bronchitis.

Case 2: The patient is a 53-year-old male with an 80-pack-year cigarette smoking history. He gave a history of chronic productive cough and mild to moderate dyspnea on exertion for many years. For four days prior to admission he had had a marked worsening of his dyspnea and his sputum production had markedly increased. His sputum had changed from its usual yellow-white character and had become purulent in nature. A chest radiograph on admission (Figure 2) showed prominent bronchovascular markings bilaterally. The internal transverse tracheal diameter was 11 mm and the anteroposterior tracheal diameter was 23 mm (tracheal index 0.48) producing a saber-sheath configuration. No other changes of COPD were identified. Physical examination revealed expiratory rhonchi diffusely throughout both lungs. Arterial blood gas determination

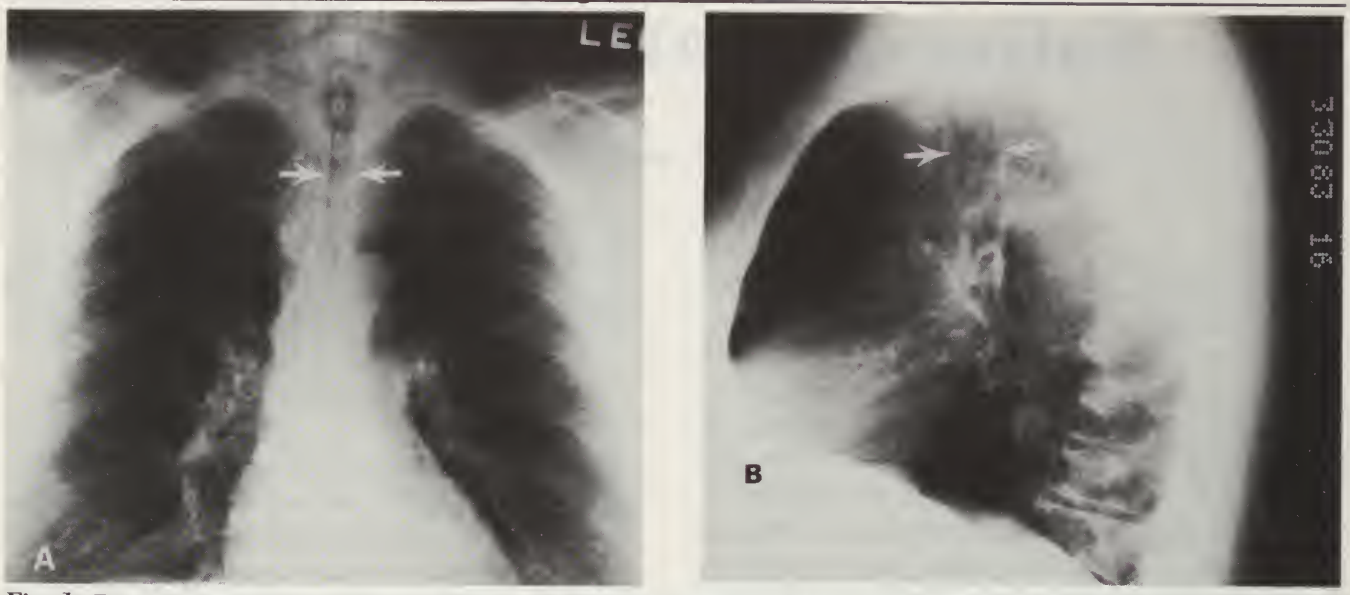


Fig. 1: Posteroanterior (A) and lateral (B) chest radiograph demonstrates an internal transverse tracheal diameter of 11 mm (arrows) and an antero-posterior diameter of 24 mm (arrows) (tracheal index 0.45). The transverse tracheal narrowing is limited to the intrathoracic trachea.

revealed a compensated respiratory acidosis with pH 7.35, pCO_2 50 mmHg, $p0_2$ 50 mmHg, and $HC0_3$ 27 mmol/L. The patient was diagnosed as having chronic bronchitis with superimposed acute bronchitis. He was treated with intravenous Aminophyllin, ampicillin, oxygen, nebulized alupent, and percussion and postural drainage and recovered over a four-day period.

Pulmonary function tests obtained after recovery from his acute episode of bronchitis revealed severe airway obstruction with FVC of 2.33 L (46% predicted), FEV_1 1.10 L (30% predicted), MMEF 0.48 L/sec (13% predicted), and FEV_1/FVC ratio of 47% on bronchodilator therapy.

Discussion

In 1905, the German pathologist Simmonds first described saber-sheath trachea in cadavers.[3] Although most of the cadavers in his series had COPD during life, he did not recognize the association and simply described saber-sheath trachea as a manifestation of aging.[2,3] Post mortem examination of saber-sheath trachea shows no evidence of tracheomalacia, instead the saber-sheath trachea is rigid and fixed in shape with dense ossification of the tracheal cartilagenous rings.[2] Although Greene and Lechner[1] and Greene[2] have shown good evidence for the association of COPD and saber-sheath trachea, the mechanism producing this unusual tracheal configuration is uncertain.

In normal subjects the trachea is usually circular or oval in shape[4] measuring 2 - 2.5 cm in diameter.[5] Greene[2] points out that a saber-sheath tracheal configuration is never seen in infants and children, but is acquired later in adult life. Several theories have been proposed to explain the coronal narrowing of the intrathoracic trachea. Pertaining to COPD, one rather simplified explanation would be that the overinflated lungs compress the trachea from side to side. However, many patients with saber-sheath trachea are found to have relatively normal lung volumes by pulmonary function testing,[2] and many with marked air trapping have no tracheal narrowing. The better explanation correlates with the pathological findings of tracheal ring deformity and ossification. Tracheal ring ossification is felt to be the end result of degeneration of cartilage following repeated tracheal collapse and stress fracture secondary to chronic cough.[2] With repair, rigidity and ossification of the tracheal cartilage occurs. Stress fracture of tracheal cartilage would be particularly likely to occur in chronic bronchitis which is clinically characterized by a chronic cough which may exist for a number of years. Limitation of the saber-sheath configuration to the intrathoracic portion of the trachea and strong association with chronic bronchitis certainly supports the theory that the saber-sheath configuration is a manifestation of how the injured trachea remodels itself within an abnormal thorax.[2]

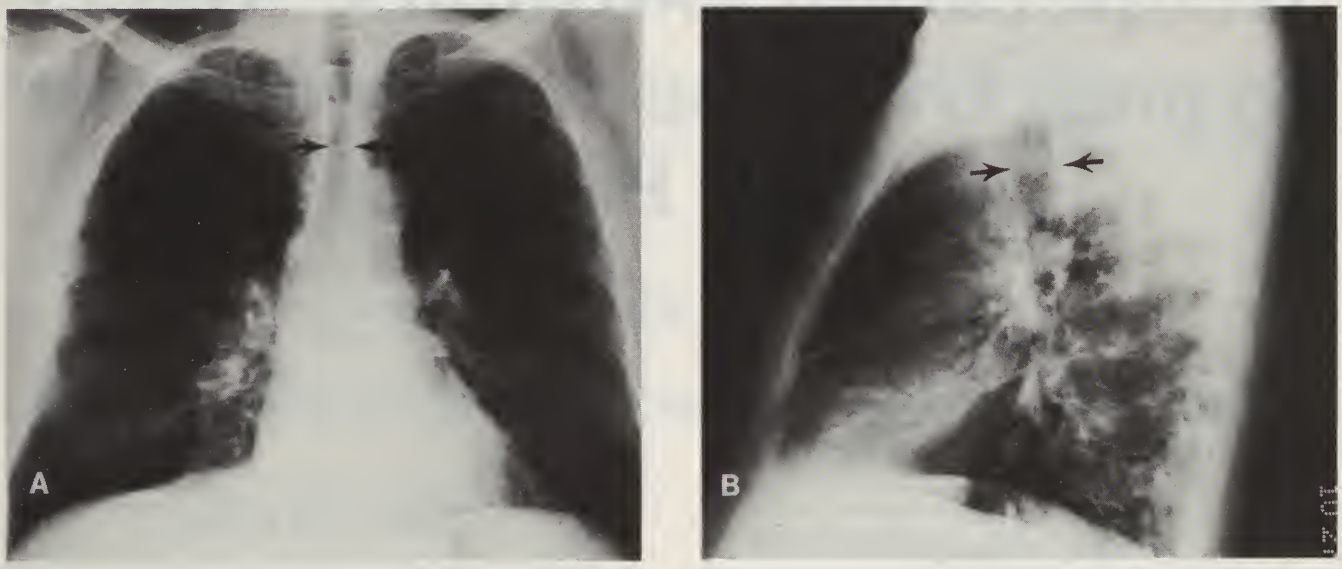


Fig. 2: Posteroanterior A) and lateral (B) chest radiograph demonstrates an internal transverse tracheal diameter of 11 mm (arrows) and an anteroposterior diameter of 23 mm (arrows)(tracheal index 0.48). The transverse tracheal narrowing is limited to the intrathoracic trachea. The posteroanterior view also demonstrates accentuation of bronchovascular markings or "dirty" chest appearance.

The diagnosis of saber-sheath trachea usually poses no problem - a trachea which exhibits smooth transverse narrowing throughout its intrathoracic course is classic. However, Rubenstein *et al*[6] have reported two cases of saber-sheath trachea that demonstrated irregularity and nodulation of the tracheal wall. Relapsing polychondritis, mediastinal fibrosis, and tracheal carcinoma may produce tracheal irregularity and nodulation and may rarely be confused with saber-sheath trachea. The association of tracheal narrowing and irregularity with inflammation of the ear pinna, saddle-shaped nose, asymmetrical arthritis, deafness, ocular changes, and aortitis should suggest the diagnosis of relapsing polychondritis.[7] Tracheal narrowing associated with densely calcified hilar and/or mediastinal masses and postobstructive pulmonary atelectasis or pneumonia with or without superior vena caval obstruction should suggest mediastinal fibrosis.[8] Bronchoscopy will confirm the diagnosis of tracheal irregularity and nodulation from tracheal carcinoma.[6] Tracheal stenosis following intubation or tracheal trauma is easily differentiated from saber-sheath trachea by the focal nature of tracheal narrowing in the upper portion of the trachea.

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From the Department of Diagnostic Radiology, Albert B. Chandler Medical Center, University of Kentucky, 800 Rose Street, Lexington, Kentucky 40536-0084.

Reoperation Coronary Artery Bypass Grafting for Recurrent Angina Pectoris

A Review of 82 Cases

ZAHI H. MASRI, M.D., ROLAND E. GIRARDET, M.D. AND ALLAN M. LANSING, M.D., PH.D.

Eighty-two patients underwent reoperation for aortocoronary artery bypass grafts during a nine-year study period. Progression of arteriosclerosis, closure of vein grafts, or a combination of both resulted in failure of the initial procedure. Indication for reoperation was recurrent angina pectoris which was not responsive to medical therapy. Mean interval between procedures was 48.9 months. Nearly half of the patients (43%) had a history of two or more of the cardiac risk factors specifically studied, the most frequently noted of which was smoking tobacco products. Intraoperative mortality was 4.8%, hospital mortality was 7.3%, and late postoperative mortality was 3.6%.

Aortocoronary artery bypass grafting is a frequently-performed, safe, effective procedure with good long-term results in relieving angina pectoris and prolonging life in patients with severe left main coronary artery stenosis. Progression of arteriosclerosis, closure of vein grafts, or a combination of both results in failure of this operation and recurrence of angina pectoris. Reoperation is indicated for treatment of recurrent angina pectoris not responsive to medical treatment, provided the coronary anatomy remains favorable and the left ventricular function is reasonably unimpaired. This repeat procedure carries relatively low operative risk and relatively good long-term results.[1-5] Until a more effective treatment of arteriosclerotic heart disease prevails, reoperation will continue to be widely practiced. This report describes our experience with 82 cases operated upon between June, 1974 and June, 1983.

Subjects and Methods

Eighty-two patients underwent reoperation for aortocoronary bypass grafts between June, 1974 and June, 1983. Of these, 22 patients had their first operations at other institutions. Seventy-two cases were done within the past six years. Twenty of the patients were female and 62 were male. Age range was 31-72 years with a mean at the time of the first operation of 48.1 years and at the time of the repeated procedure of 52.4 years. Data was obtained by reviewing patient records and by telephone interviews with all surviving patients in mid-1983.

Severe persistent angina after coronary artery bypass grafts or recurrent angina unrelieved by medical treatment were the indications for cardiac catheterization and reoperation. Thirty-nine patients (48%) were operated upon for closure of the original grafts, 14 patients (17%) for progression of the disease, and 29 patients (35%) for a combination of graft closure and disease progression. Mean interval between operations was 48.9 months for the whole group, 65.9 months for patients with progressive disease, 41.0 months for patients whose vein grafts had closed, and 53.6 months for patients with a combination of both.[Table I] The mean number of grafts per patient for the initial procedure was 2.1, essentially the same as for reoperation, 1.9.

At the time of the repeat operation, 26 patients (32%) had hypertension, 14 patients (17%) had diabetes mellitus, 11 patients (13%) had hypercholesterolemia (mean 386 mg/100 ml), and 11 patients (13%) had hypertriglyceridemia (mean 342 mg/100 ml). Eleven patients (13%) were overweight (mean 194 pounds). Five patients (6%) had left ventricular ejection fraction of 30% or less, and three patients (4%) suffered perioperative

TABLE I

INTERVAL BETWEEN PROCEDURES

	Progression	Closure	Combination	TOTAL
Range	12-133 mos	11 days-120 mos	7-145 mos	11 days-145 mos
Mean	65.9 mos	41.0 mos	53.6 mos	48.9

TABLE II

INFLUENCE OF RISK FACTORS

	Progression	Closure	Combination
Total no. pts.	14	39	29
No. pts. with two or more risk factors	9	13	13
Percentage	64.3%	33.3%	44.8%

myocardial infarction. Thirteen patients (16%) had significant left main coronary artery stenosis. Four patients (5%) had acute pre-operative myocardial infarction with intractable angina, one of whom was in cardiogenic shock.

Between the first and second operations, 12 patients (15%) suffered mild myocardial infarction, 32 patients (39%) continued to smoke tobacco products, 11 patients (13%) continued to be overweight, 37 patients (45%) showed mild deterioration of left ventricular function (ejection fraction reduced by at least 5%), and 22 patients (27%) presented with unstable or pre-infarction angina. One patient had had four revascularization procedures and one had had three, the first of which had been a Vineberg procedure.

Nearly half (43%) of the patients in the study were affected by two or more of the cardiac risk factors we examined specifically: increased serum lipids, diabetes, obesity, and smoking tobacco products.[Table II] Sixty-four percent of the patients who required reoperation for progression of disease were found to have a history of at least two of these factors, 33% of those whose vein grafts had closed, and 45% of those with a combination of these indications. The most frequently noted risk factor was smoking; 39% of the patients continued to smoke after the first operation.

Operative Technique

Eight units of whole blood were typed and crossmatched and held in reserve for each patient before the repeat procedure. In all cases, the femoral artery was exposed and prepared for the purpose of emergency arterial cannulation or for routine arterial cannulation when cannulation of the ascending aorta was not desired. Saphenous veins or arm veins were harvested for the grafts. Median sternotomy was the standard approach to expose the heart, although a lateral thoracotomy approach was used in six cases.

TABLE III

MEAN BLOOD LOSS

	First Operation	Reoperation
Intraoperative blood loss	605 cc	1033 cc
Postoperative blood loss within 24 hours	460 cc	684 cc

TABLE IV

Intraoperative deaths	4 (4.9%)
In-hospital postoperative deaths	6 (7.3%)
Late postoperative deaths	3 (3.7%)

TABLE V

	Progression	Closure	Combination
No. pts.	14	39	29
No. deaths	6	3	4
Percentage	42.9%	7.7%	13.8%

The Lebshe knife was used to split the sternum, with very few instances of injury to the right ventricle or serious complications. Sharp dissection to free the heart and aorta from the sternum and pericardium often consumed half the operative time. Previous sites of aortovenous anastomosis were used as new sites of proximal anastomosis. Moderate systemic hypothermia and the injection of cold potassium cardioplegia into the ascending aorta to arrest the heart in diastole during distal anastomosis has been routine procedure in all cases since 1978.

Utilization of an autologous blood recovery system (Cell Saver™) to minimize blood loss was used at the discretion of the surgeon. Average intraoperative blood loss was 605 cc for the first operation and 1033 cc for the repeat procedure, and average blood loss within 24 hours after operation was 460 cc for the first and 684 cc for the second operation.[Table III] The average postoperative hospital stay was 11 days for each surgical procedure. The intra-aortic balloon pump was not used on any patient in this series.

Results

Reoperation in our series carried an intraoperative mortality of 4.8%, an in-hospital postoperative mortality of 7.3%, and a late postoperative mortality of 3.6%.

TABLE VI

Causes of intraoperative deaths	
Acute pre-operative myocardial infarction (one patient was in cardiogenic shock before surgery)	2 cases
Poor left ventricular function with unstable angina (EF <30%)	1 case
Acute intraoperative myocardial infarction; cholesterol emboli in left main coronary artery	1 case
Causes of in-hospital postoperative deaths	
Acute pre-operative myocardial infarction	2 cases
Ventricular tachycardia	2 cases
Poor left ventricular function	1 case
Postoperative myocardial infarction and stroke	1 case
Causes of late postoperative deaths	
Myocardial infarction, 90 days postop	1 case
Poor left ventricular function, 4 years postop	1 case
Stroke, 2 years postop	1 case

Four patients died intraoperatively, two of whom had suffered acute myocardial infarction before surgery, one of whom had unstable angina and poor left ventricular function, and one of whom had severe left main coronary artery stenosis with intracoronary cholesterol embolization from a previous vein graft during intraoperative dilatation of the saphenous vein graft. Of the six patients who died postoperatively in hospital, two had suffered acute myocardial infarction pre-operatively, one had poor left ventricular function, two died of ventricular tachycardia, and one died of myocardial infarction and stroke. Three patients died during the follow-up period, one from myocardial infarction, one from stroke, and one from the complications of poor left ventricular function.

Discussion

Of the 5234 patients who underwent aortocoronary artery bypass grafting on our cardiovascular surgery practice during the nine-year study period, 82 patients underwent repeat operation. Twenty-two of these patients had their first operations at other institutions.

Causes of failure of the first operation, time interval between first and second operation, and incidence of predisposing factors are demonstrated in Tables I and II. Weight reduction, diet control, abstinence from smoking, control of diabetes, and administration of antilipid drugs could reduce the incidence of reoperation from progression of arteriosclerosis. Vein graft closure is attributed to inadequate surgical technique and gradual attrition of the vein grafts in their new habitats.[1,2,6] Protection of the vein grafts begins upon being harvested from the legs and arms. Rough handling, overdistention of the veins to test for leaking branches, tying the branches too close or too far from their origins, and leaving residual bands or kinks are factors which shorten the life of the vein as a smooth conduit between the aorta and coronary arteries.[2,6]

Veins derive their blood supply from their lumens and should be left in their original anatomic locations until cardiopulmonary bypass is begun. An added line of protection is to leave the vein grafts in a heparinized blood bath until needed for anastomosis. Surgical prudence dictates choosing a suitable site of anastomosis in the coronary artery and precise matching of the lumens of the artery and vein. Areas of previous myocardial infarction with diffuse fibrosis of the myocardium have higher resistance and yield poor results. It is important to have an adequate length of vein graft free of kinks and twists and with no acute angulation at the aortic anastomosis. Some veins may have been a previous site of phlebitis, so careful assessment of their thickness and patency should be carried out. Transient thrombus formation is known to form on the inside of an anastomotic site. A very smooth coaptation of vein and artery is highly recommended.

Both progression of disease and surgical technique are relatively controllable factors but attrition of vein grafts is not. Vein grafts are as susceptible to venous sclerosis as arteries and are affected by the same factors causing arteriosclerosis. In addition, the veins normally carry blood at relatively low pressures and when subjected to high arterial pressure, their behavior becomes unpredictable. Intimal proliferation and fibrosis and aneurysmal formation are common pathological changes. Attrition of vein grafts has been reported to occur at a rate of 15-20% within the first 24 months and at 2% annually thereafter.[6,7] This remains the most uncontrollable of all factors. Antiplatelet products administered pre-operatively and postoperatively have been reported to prolong the patency of the vein graft.[8,9]

Good left ventricular function contributes to the success of the repeat bypass procedure. Inadequate myocardial protection and progression of disease are the most common causes of poor left ventricular function. Fortunately in this series, deterioration of the left ventricle occurred in only 6% of the patients and accounted for an average of 5% deterioration in the left ventricular ejection fraction.

TABLE VII

	No. pts.	Progression	Closure	Combination
Class I	37	5 (62.5%)	18 (50%)	14 (56%)
Class II	10	2 (25%)	5 (13.9%)	3 (12%)
Class III	9	1 (12.5%)	5 (13.9%)	3 (12%)
Class IV	13	0	8 (22.2%)	5 (20%)
TOTAL	69	8	36	25

[Functional cardiac class determined by New York Heart Association guidelines]
[Length of follow-up ranged from 3-110 months; mean = 35.2 months]

Although reoperation is more tedious than the initial procedure, it does not pose extraordinarily serious complications. In two cases, the right ventricle was injured while opening the sternum but did not compromise the operation and did not change the successful long-term result in either patient. No pericardial substitutes were used in patients in this series.[10-12] The average blood loss during the repeat procedure is usually greater than that of the first operation.

Intraoperative mortality in this series is significantly higher (4.8%) than the 1.2% operative mortality we have seen in patients undergoing coronary revascularization for the first time,[13] but is more easily understood when the case histories of the patients are examined. Acute pre-operative myocardial infarction, cardiogenic shock, poor left ventricular function, and massive intraoperative myocardial infarction put the patient at great risk. Ventricular tachycardia, poor left ventricular function, myocardial infarction, and stroke are recognized fatal complications in the postoperative patient.

It is interesting to note in Table V that the highest mortality in our series occurred in those patients operated upon for progression of coronary artery disease and was lowest in those in whom closure of previous vein grafts made reoperation necessary. It would appear that the best predictable results should be for those patients whose reoperation is done on an elective basis for closure of vein grafts in the presence of favorable coronary anatomy with good left ventricular function. The late results of follow-up mortality in this study (3.6%) compare favorably with reported results from other series, in which mortality ranges from 2.5% to 9.5%.[1-3,5-7,14-17]

Aortocoronary artery bypass grafting plays a prominent therapeutic role in the treatment of coronary arteriosclerosis and angina pectoris after failure of medical treatment or in cases of severe left main coronary artery disease. It can be repeated with acceptable mortality and morbidity. Although the postoperative results are less satisfactory than those of the primary procedure, reoperation for the second or even third time constitutes a good palliative line of treatment.[1,2,5,14,15,18-20]

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Reprint requests to 718 Medical Towers North, 624 South Floyd Street, Louisville, Kentucky 40202.

Lord's Rectal Dilitation and Treatment of Rectal Disease

DAVID A. HULL, M.D., JOHN M. STOECKINGER, M.D.
EDGAR M. MCGEE, M.D., SIDNEY F. HOPKINS, M.D.
AND EDWIN L. ROGERS, M.D.

In 1968 Peter Lord[8] of England first introduced the out-patient method of treatment of hemorrhoids and re-emphasized it in 1969.[7] Since that time rectal dilitation has been used extensively in Great Britain. The features of this procedure, as originally described are digital dilitation to eight fingers and the use of rectal pack in the postoperative period. The systematic use of rectal dilitation by the patient in the postoperative period was stressed. In addition, bulk laxatives and high fiber diets were advocated and the occasional excision of redundant, or inflammed, peri-anal tissue simultaneous with the performance of the dilitation was recommended.

From April 1981 to June 1984, the authors have operated upon 83 patients in which the primary procedure performed was that of a Lord's rectal dilitation. It is our experience with this group of patients which comprises the basis of this report.

History

Miles[11] first theorized as to the presence of pectin bands as a causative factor in development of hemorrhoids. Presently there are three different theories as to hemorrhoidal development, the varicose vein theory, the vascular hyperplasia theory, and the sliding anal theory. The varicose vein theory is probably the oldest explanation for the development of hemorrhoids and is based on the observations of discrete dilitations on the veins in hemorrhoidal tissue. These dilitations were explained as localized areas of increase of venous pressure.

Various mechanisms have been postulated to explain the increased venous hypertension seen in hemorrhoidal veins. Foremost of these has been the anatomical finding of the communication between the portal and systemic venous circulation and the lack of venous valves. This fact allows pressure of the portal system to be transmitted to the venous plexus of the rectum. The upright posture of man could further aid in this hypertension, as would the voluntary increase in intra-abdominal pressure, as noted in defecation. None of these facts seem to explain the localized nature of the venous hypertension and, additionally, the fact that these dilitations were found in children further discredits this theory.

The vascular hyperplasia theory was popular in the 19th century. It considers that hemorrhoids developed from erectile tissue hyperplasia and are thought of as hemangiomas in nature. This vascular tissue is compared to the erectile tissue of the corpus cavernosium, the webs of vascular tissue being similar. Hemorrhoids are alleged to develop from degeneration of the supporting tissue in the anal canal and hemorrhoids are frequently associated with a lax anus. A lessening of smooth muscle was first described by Treitz in 1853[16] who noted that this muscle arose from the internal sphincter and is known to form a sling, which has the hemorrhoids invested within. Downward pressure is thereby transmitted to the veins of the hemorrhoids. This has been called the Treitz muscle and the veins referred to as anal cushions.

The sliding anal lining theory is dependent upon increased rectal pressure which is transferred downward and forces the anal cushions to protrude outside the anal canal, producing the hemorrhoids themselves. Thompson[16] refers to these anal cushions as sub-mucosal tissue in the anal canal which are really dilated hemorrhoidal veins. The prolapse of these discreet masses is dependent upon increased rectal pressure and are noted to be regularly in the right anterior and right

TABLE I RECTAL DILITATION LEX. SURG. GROUP	
Period = April 1981 - June 1984 (50 months)	
TOTAL PROCEDURES PERFORMED	83
METHODS OF FOLLOW-UP:	
1 - DIRECT PATIENT CONTACT & EXAM.	
2 - MAILED QUESTIONNAIRE (30)	

TABLE II RECTAL DILITATION LEX. SURG. GROUP	
Average Age: - 43 years	
Males - 47	
Females - 36	

TABLE III RECTAL DILITATION LEX. SURG. GROUP	
Symptoms:	
Pain	54
Bleeding	37
Prolapse	18
Thrombosis	10
Post. Op. Stenosis	6

TABLE IV RECTAL DILITATION LEX. SURG. GROUP	
Physical Findings	
Hemorrhoids Alone	65
Fissures	17
Fistula	14

TABLE V RECTAL DILITATION LEX. SURG. GROUP	
Operative Treatment	
Dilitation Alone	28
Dilitation & Hemorrhoidectomy	20
Dilitation & Thrombectomy	6
Dilitation & Exc. Skin Tag	5
Dilitation & Fissure	8
Dilitation & Fistula	14
Dilitation & Banding	2
	83

TABLE VI RECTAL DILITATION LEX. SURG. GROUP	
Follow-Up	
Less than 1 month	25
2 months	19
6 months	7
12 months	12
12 - 36 months	17
36 - 60 months	1
Lost	7

posterior, and left lateral positions in the anal canal. Increased rectal pressure is necessary to produce hemorrhoids in this theory.

In 1975 Hancock and Smith[5] measured the anal pressure in 56 patients with hemorrhoids and 40 asymptomatic subjects. The anal pressure of patients with hemorrhoids was significantly higher than that of the controls (93.6 cms. water vs. 66.8 cms.). Ultra slow waves represent activities of the internal sphincter and are present even under anesthesia. Anal dilitation abolishes these waves and one year after dilitation 19 patients had a mean pressure of 66 cms. of water. In 1979 Creve and Hubens[2] reported 28 post-anal dilitation patients and compared them with 32 normal subjects. These patients were studied by measurements of their anal pressure and results showed that Lord's anal dilitation significantly reduced the anal pressure in the treated group from 78.6 to 43.8 mm. of Mercury. These authors stressed that the increased anal pressure in patients with hemorrhoids was the causative factor in the development of hemorrhoids themselves. In 1980 Vellacott and Hardcastle[17] concluded, after studying the pressure measurements in controlled groups, that route dilitation, post-operatively was unnecessary.

Georgoulis[3] reported on 100 patients who underwent Lord's rectal dilitation in 1971, all of whom had good results. Anscombe, Hancock, and Humphreys[1] reported in 1974 on 100 patients who were treated at random with dilitation vs. hemorrhoidectomy and the immediate and late results were compared. They reported there was no significant difference between the two groups but patients treated by Lord's dilitation left the hospital considerably sooner and returned to work more rapidly. They advocated the rectal dilitation as the procedure of choice. In 1981, Hancock[4] reporting a follow-up of his 1975 series, measured the rectal pressure in the conscious patients and those anesthetized, demonstrating that the internal sphincter contributed about 90% of the resting anal pressure. The group which had been studied in 1975 showed a 65% cure of symptoms five years after the procedure was done. The author showed that six days post-op there was a 50% reduction in rectal pressure; at one year

TABLE VII

RECTAL DILITATION
LEX. SURG. GROUP

	Patient Satisfaction
71	Satisfied
10	Not noted
2	Dissatisfied
83	

TABLE VIII

RECTAL DILITATION
LEX. SURG. GROUP

Complications:

a. Post Op. Bleed - 5
   1 Returned O.R. 24 hrs.
   1 Returned O.R. 2 mo.
b. Recurrent Prolapse - 3 - sub op.
c. Dev. Fissure - op. 5 mo. later - 1 pt.
d. Dev. Fistula - op. 9 mo. later
e. Dissatisfied pt. - 1 pt.
f. Poor Control BM - 1 pt.
g. Recurrance pain - 1 pt.
h. Misc. (voiding, Sp. headache, etc.) 3 pts.

TABLE IX

RECTAL DILITATION
LEX. SURG. GROUP

Length Hospital Stay	
24 Hr.	34 patients
48 Hr.	18 patients
72 Hr.	17 patients
96 Hr.	9 patients
120 Hr.	2 patients
144 Hr.	1 patient
168 Hr.	2 patients
	83 patients

TABLE X

RECTAL DILITATION
LEX. SURG. GROUP

Return to Work:	
1 week	16 patients
2 weeks	6 patients
3 weeks	3 patients
4 weeks	2 patients
Over 4 weeks	2 patients
	30 patients

there was no change in the reduced pressure; five to six years later the pressure was the same as it was in the immediate post-operative period. Hancock demonstrated that there was a profound modification in the motility produced by dilitation. He further concluded that 90% of the first and second degree hemorrhoids were cured after five years by rectal dilitation, and 46% of the third degree hemorrhoids were cured after five years. It was postulated by this author that a tight internal sphincter leads to high shearing force on the walls of the anal canal during defecation and this force displaces and stretches the normal cushions as suggested by Thompson.[16] Correction of this tightness will allow the structural changes in the anal cushion to regress, provided they have not progressed too far.

MacIntyre & Balfour[9] followed 55 patients one year and demonstrated that dilitations and formal hemorrhoidectomy compared favorably. Walls and Ruckley[18] followed 100 patients five years following rectal dilation and demonstrated 87% good, long-term results. McCaffrey[10] followed 50 patients four years and noted 75% were symptom free at the end of that period. Sames[14] reported on 144 patients treated by rectal dilitation with three failures and two requiring subsequent hemorrhoidectomy. Sandiland[15] in 1981 emphasized the advantages of Lord's Dilitation noting that the length of hospital stay was shortened. There was less post-operative pain, patients returned to work sooner and results compared favorably with hemorrhoidectomy.

In 1971, Hood and Williams[6] compared their results of dilitation with banding of hemorrhoids and noted there was 100% good results with banding, and 85% good results with rectal dilitation. O'Connor in 1976[1] reported the treatment of 50 patients with rectal dilitation under local anesthesia with good results. The same author,[12] in 1980, advocated the use of rectal dilitation in post-partum patients and reported using it on 119 patients with good results and no complications.

Method of Procedure

In the author's hands the rectal dilitation is performed in the manner similar to that described by Lord in 1968. This consists of an eight finger dilitation under anesthesia. The occasional excision of redundant, inflammed peri-anal tissue, the removal of thrombi from thrombosed hemorrhoids, and the excision of symptomatic anal fissures frequently accompanies the dilitation.

The routine use of a large rectal pack is advocated by the authors in an effort to control the post-operative bleeding that frequently occurs. This pack is left in for a period of one to four hours post-operatively. It is used in conjunction of long acting local anesthetics which are injected peri-anally immediately following the dilitation.

Routine post-operative rectal dilitations are not advocated by the authors. The period of hospitalization is most frequently less than 24 hours and we attempt to

do this on outpatient setting when at all possible. The use of general anesthetic, rather than a regional block anesthetic, seems to reduce the incidence of post-operative urinary retention and, therefore, it is advocated. More recently, we have been using local office anesthesia. Instructions regarding importance of high fiber diet and the use of bulk laxatives in the post-operative period is stressed.

Results

Eighty-three patients were operated upon by the authors in a 50-month period (Table I). Of these patients, the follow-up was by direct patient contact and examination. All were mailed a questionnaire to which 30 responded. The average age was 43 years and there were 47 males and thirty six females (Table II). Of the symptoms, 54 had pain as a predominant symptom, 37 bleeding, 18 prolapsed hemorrhoids, 10 thrombosis, and six post-operative stenosis (Table III). There were 65 hemorrhoids alone, 17 rectal fissures and 14 rectal fistulas (Table IV). There were 28 dilitations as the sole operative procedure. Twenty dilitations were associated with limited hemorrhoidectomies and six dilitations with thrombectomy. Five rectal dilitation patients had skin tags excised and eight patients underwent dilitation with excision of a superficial fissure. Fourteen patients had dilitation with excision or marsupilization of a fistula, and two underwent dilitation with hemorrhoidal banding (Table V). 25 patients were followed less than one month, 19 followed less than two months, seven followed less than six months, 12 followed less than 12 months, 17 followed 12 or 36 months, one followed 36 to 60 months, and seven were lost to follow-up (Table VI). There were 71 patients of the 83 patients who noted satisfaction with the operative procedure performed. In 10 patients the satisfaction with the procedure was not noted, and two indicated they were not satisfied with the procedure (Table VIII).

One of the more reported complaints following this procedure is temporary loss of control of flatus and this is estimated to be in the neighborhood of 5%. In our series, five patients noted a temporary loss of control of flatus, one stating that he had lost permanent control of air. In addition, the loss of bowel movement control has been reported. One patient in the present series stated that she had dissatisfaction with bowel control, but upon specific questioning, this was noted to be diarrhea rather than true incontinence. Other complications were post-operative bleeding in five, one of which was returned to the operating room where suture ligature was necessitated to control it 24 hours later. One patient was returned to the operating room two months later for continued intermittent bleeding. Recurrent prolapse occurred in three patients. One patient developed a fissure and one patient developed fistula. Miscellaneous complications, such as voiding, spinal headaches, etc., occurred in three patients (Table VIII).

It is interesting to note that the operative stay was significantly reduced in this group of patients. Thirty four of 83 patients were in the hospital less than 24 hours, 18 less than 48 hours, and 17 less than 72 hours for a total of 69 patients of 83 who had a hospitalization less than 72 hours. The remainder of the 83 patients showed nine were in less than 96 hours, two less than 120, one less than 140, and two patients less than 168 hours (Table IX). It is felt by the authors that with experience and proven selection of patients this period of hospitalization can be further reduced.

In addition to the decreased hospital stay, these patients showed a marked propensity of returning to work at an early time. Thirty patients were contacted by questionnaire and 16 patients returned to work within one week, six within two weeks, three within three weeks, two within four weeks, and three over four weeks (Table X). The earlier rehabilitation of these patients can be improved with further experience with this procedure. The authors intend to expand the use of this procedure and will stress the out-patient method, as well as the use of local anesthesia, in the office. Further broadening of the scope of the operation, particularly when using it in conjunction with hemorrhoidal banding, is contemplated and stressing its use in the post-partum patient following delivery, will also be stressed.

Conclusions

Rectal dilitation (Lord's procedure) is an effective cost, effective outpatient procedure, which gives good results in the treatment of hemorrhoids. Five year follow-up shows permanent improvement in the patients so operated upon. Eighty-three patients underwent this procedure by the authors and they conclude that the procedure is a safe and effective operation.

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From The Lexington Surg. Group and Central Baptist Hospital - Lexington, Kentucky.

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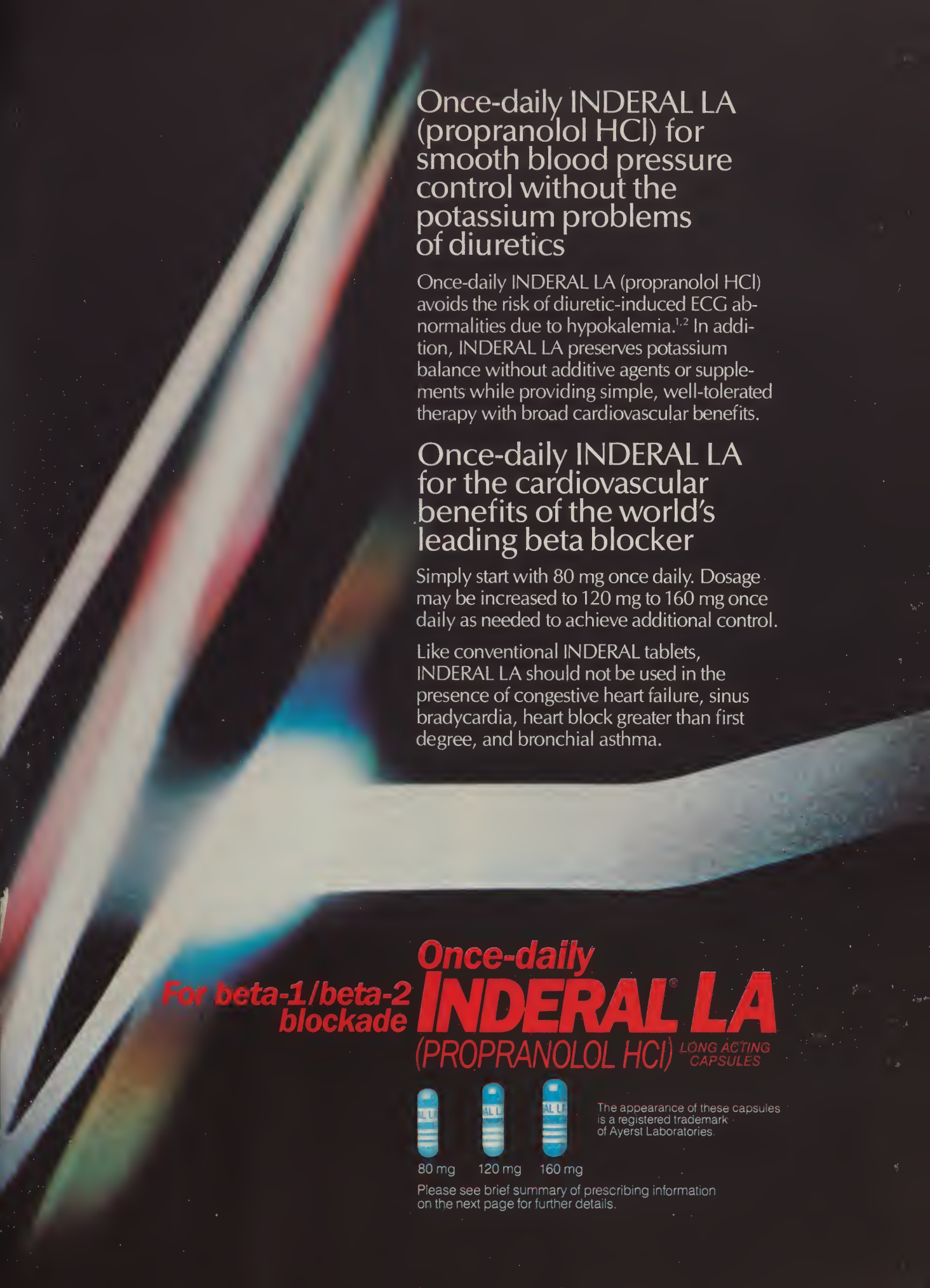
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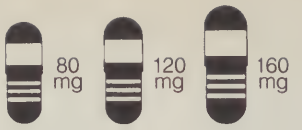
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The mechanism of the antihypertensive effect of INDERAL has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. INDERAL has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, INDERAL also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of symoathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.
INDICATIONS AND USAGE. Hypertension: INDERAL LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.
CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.
WARNINGS. CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.
PRECAUTIONS. *General:* Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy: Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: INDERAL is excreted in human milk. Caution should be exercised when INDERAL is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.
ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia; congestive heart failure; intensification of AV block; hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.
DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL tablets to INDERAL LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg for mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—*Dosage must be individualized.* The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—*Dosage must be individualized.* Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—*Dosage must be individualized.* The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg INDERAL LA once daily

PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

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PROGRESS IN BURN THERAPY: SKIN BANKING AND EPIDERMAL CULTURE

LUKE J. CURTSINGER, III, M.D., GREGORY S. SCHULTZ, PH.D. AND GREGORY L. BROWN, M.D.

Burn injuries continue to carry a significant mortality. A reliable means of temporary wound coverage in the severely burned patient is cadaver allograft. Skin banking is an established method by which cadaver skin may be procured, stored and supplied with ongoing quality controls. However, the demands for allograft greatly exceed the supply because of a limited number of suitable donors. A new technique of cultured autologous epidermis has been developed. This method allows rapid expansion of autogenous skin suitable for grafting. Combining conventional allografting with cultured epidermis offers a promising means to decrease the morbidity and mortality of these severly injured patients. A new facility combining skin banking and epidermal cell culture has been established at University Hospital in Louisville in an effort to improve comprehensive burn care in this region.

Thermal trauma continues to be a considerable public health problem affecting over two million patients in the United States each year. Of those patients, 200,000 require hospitalization and 12,000 eventually die from their trauma.[1] The average length of hospital stay for the burn patient is 14.4 days, utilizing over 1.5 million hospital days per year.[2] Considering the missed employment and medical expenses, burn injuries account for several billion dollars of medical expenditure per year. Louisville has the fifth highest burn mortality for any city its size in North America. During 1983, 336 people were hospitalized from fires in which 16 died.

Despite improvements in patient monitoring, fluid resuscitation and antibiotics, mortality from burn injuries remains high. The most common cause of death in these patients is sepsis. Therefore, measures that reduce the incidence of infection decrease mortality. Early burn coverage with autograft, allograft or xenograft remains a very effective technique to prevent infection in the burn patient.

Skin Banking

For over four decades, viable human allograft obtained from deceased donors has been utilized as a temporary cover for burn wounds.[3] Allograft skin coverage provides a physiological barrier that effectively decreases the loss of heat, electrolytes, water and protein and imposes a mechanical barrier, which prevents contamination by environmental micro-organisms until the wound can be permanently closed with autogenous skin.[4] Obviously, the severely burned patient with extensive open wounds represents an extreme example of physiological derangement and is the type of patient in which interim allograft skin coverage can be lifesaving. Because of the inherent immunosuppression produced by the burn itself, cadaver skin may remain upon the wounds for up to 45 days prior to rejection.[5]

The national yearly need for allograft has been estimated to be 32,000 ft^2 by the Skin Council of the American Association of Tissue Banks. In a recent survey of the 19 accredited skin banking facilities, only

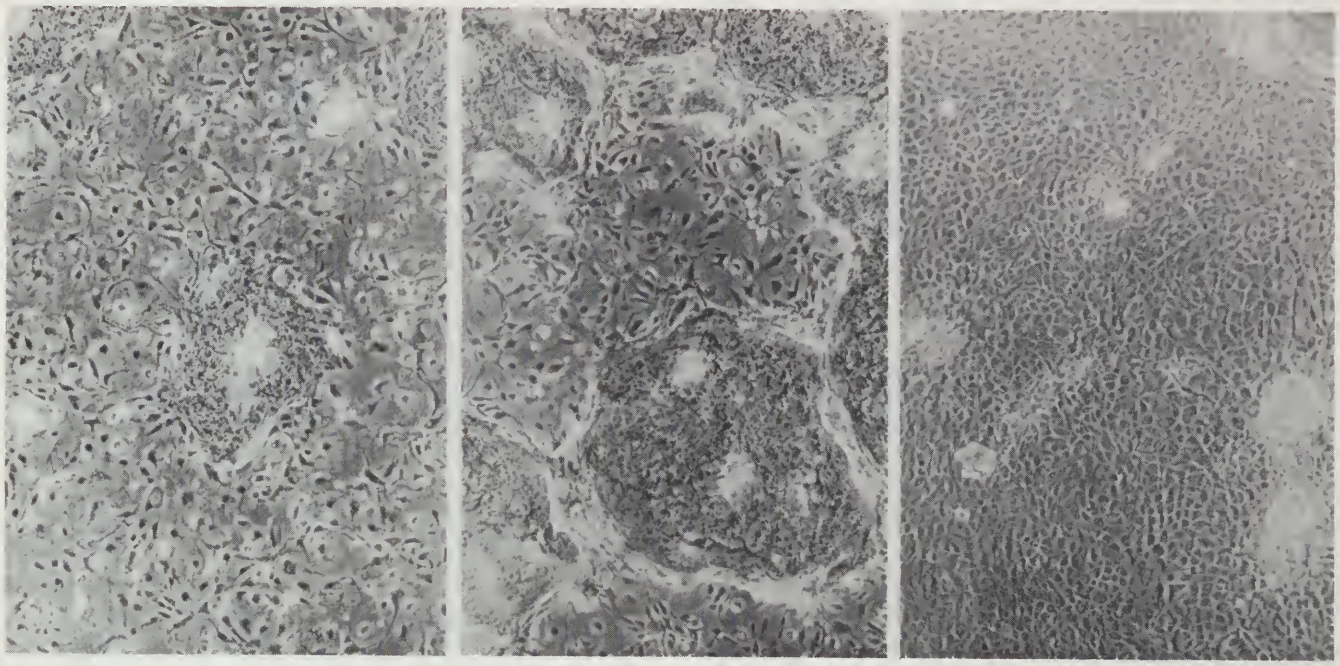


Fig. 1. Cultured human epidermal cells shown at three stages of growth by inverted phase contrast microscopy (200X). Left: 8th day. Central focus of small proliferating keratinocytes seen on background of large irradiated 3T3 fibroblasts. Middle: 12th day. Expanding foci of keratinocytes seen at lower half of photograph and about the periphery gradually displace fibroblasts. Right: 15 days. Confluent keratinocytes cover entire field and have begun maturation and stratification.

5,000 ft^2 of allograft was harvested each year. Thus, the need for transplantable cadaver skin is five to seven times greater than the present supply.[5]

There are two well-established methods for storing allografts: standard refrigeration and cryopreservation. Fresh cadaver skin stored at 4° C may be used within seven days of harvesting; however, allografts that are treated with a cryoprotectant and placed in nitrogen vapor at -196°C will retain 85% viability for one year.[4] The major functions of a skin bank, therefore, are to process and store human skin until needed and to maintain quality controls using microbiological assays.

There are many specific reasons why a potential skin donor may not qualify as seen in Table 1. The Skin Council of the American Association of Tissue Banking advises that:

> The donor should have no disease which, in the best current medical judgment, could be transmitted to, and harm, the recipient of the skin. No donor shall be used who, at the time of death, had a malignancy, systemic microbial infection, diffuse dermatitis, treponemal specific antibody or hepatitis associated with antigen in their serum, or history of viral hepatitis or jaundice.[6]

Despite these contraindications for skin harvesting, skin may be harvested up to eight hours after heart cessation or 24 hours thereafter if the cadaver is maintained at 4° C.[7] Therefore, the potential donor pool for skin is much larger than other organs, which require a beating heart for organ perfusion prior to harvesting.

Cultured Autologous Epidermis

During the past decade, a technique has been developed by Howard Green, M.D., at Harvard Medical School that produces accelerated growth of human epidermis in tissue culture.[8] Many prior attempts had been made to grow skin in tissue culture; however, it previously was impossible to obtain cellular confluency and stratification. Doctor Green made two important discoveries that solved the confluency problem: plating the keratinocytes on previously irradiated 3T3 fibroblasts and adding epidermal growth factor to the culture media. By implementing these two factors, it is now possible to grow stratified epidermis, 12-15 cells thick, in tissue culture at an accelerated rate. A 2 cm^2 skin biopsy of unburned skin is trypsinized, and the resulting keratinocyte suspension is placed in a specialized tissue culture environment. Utilizing this technique, it is possible to expand this original surface area by a

TABLE I

Indications to reject a potential skin donor*

1. Sepsis or bacteremia
2. Infections of the skin or dermatitis
3. Acute respiratory infection or pneumonia
4. Drug addiction or overdose (due to risk of hepatitis)
5. Jaundice
6. Toxic or viral hepatitis
7. Treponemal antigen or antibody
8. Malignancy, including sarcoma, carcinoma, lymphoma, and leukemia
9. Cancer chemotherapy or radiation therapy recipient
10. Poisoning
11. Leprosy
12. Undernourishment at death (difficult to remove skin)
13. Autoimmune disease affecting integrity of the skin
14. Collagen diseases affecting integrity of the skin
15. Burns greater than 50% of body surface area

*Donors should be between 18 and 75 years of age.
(Reproduced with permission from Standards Committee of the Skin Council of the American Association of Tissue Banks: Guidelines for the banking of skin tissues. *Am Assoc Tissue Banks Newsletter* 3:5-8, 1979.)

factor of 10,000 in three to four weeks. In essence, a piece of epidermis that is the size of a postage stamp can be expanded to an area equivalent to the entire body surface area in four to five weeks. Research projects on tissue culture and epidermal growth factor have been underway for several years in the Department of Biochemistry at the University of Louisville. Development of human keratinocyte cultures has been progressing in cooperation with the Department of Surgery since 1983.

Figure 1 shows the progression of keratinocyte growth from an early colony on a bed of irradiated 3T3 fibroblasts to the confluent stratified squamous epidermis where the 3T3 fibroblasts have been displaced. These confluent sheets can be enzymatically removed from the culture dishes and applied to the burn wounds in a manner similar to conventional split-thickness skin grafts.

The clinical relevance of this process is that it is now possible to rapidly produce large quantities of autologous epidermis for definitive wound closure. Gallico and associates have reported two children who sustained flame burns on more than 95% of their bodies. Utilizing early excision and temporary coverage with cadaver allograft, both patients were eventually covered with their own skin. More than 50% of the burn surface on these two patients was successfully grafted with cultured epithelial autografts.[9]

Unlike cadaver skin, the cultured epidermis does not undergo rejection nor does it require eventual excision. The long-term biological behavior of cultured epidermis is not known. Unlike conventional split-thickness skin grafts, there is no dermal component. It seems reasonable to postulate that the durability will prove to be less than that of conventional skin grafts, especially over joints. However, this technique does afford an early means of definitive wound closure with the advantage of decreased morbidity and mortality.

Conclusion

For a significant body surface area burn, the ideal skin banking facility is one that offers temporary allograft for initial wound coverage and simultaneously initiates the growth of autologous epidermis. Therefore, once the allografts are rejected, the cultured skin is available for definitive grafting. By using these two services in a combined facility, the hospital stay, morbidity and mortality of these devastating injuries will hopefully decrease.

As a regional service, the Department of Surgery at the University of Louisville and Humana Inc. have established a combined skin bank/cell-culturing facility at Humana Hospital University. This service is important to patients burned in Kentucky, because there is no other such facility within the state. Therefore, with a commitment to continued research and improved fire prevention, the mortality from these devastating injuries may be dramatically reduced.

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From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Address reprint requests to: Gregory L. Brown, M.D., Department of Surgery, Ambulatory Care Building, University of Louisville School of Medicine, Louisville, KY 40292.

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INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbde dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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EDITORIAL

Spring has sprung, the southerly winds warm our cold bones and we look to the sky for the sun again. In legions our youth migrate to beaches filled with brethren united in seeking good times and tans.

Recently the birth of tanning centers has added new numbers to the equation. No longer can the brief sojurns to equatorial climates and the hiatus from the cooler seasons be the only factors used to accumulate solar damage. Lying intimately with 20-24 unrelenting light bulbs or standing imprisoned in a cabinet lined by ultraviolet lights, the sun worshippers are augmenting the solar imput at a dramatic pace.

In what seems to be logarithmic rate, patients are asking their physicians for permission, for substantiation, or for salvation when they contemplate or more frequently embark on a tanning program. Some attend these clinics and the schedule they are given with the same ardor as the dieters to fat reduction programs or the runners to their daily miles.

An inadvertant compliment that one must have been to Florida or on vacation is sufficient justification to continue at the same pace of tanning to perpetuate "the look."

Recently the American Academy of Dermatology has issued warnings of the potential hazards of prolonged exposure to ultraviolet light. For years we have seen the basal and squamous cell carcinomas favor sun exposed areas and lighter pigmented people. Melanoma incidence is increasing now at an alarming rate and despite a weaker relationship of incidence to exposed areas of the body, melanoma rates are much higher in countries with more sun and fair skinned populations (Australia).

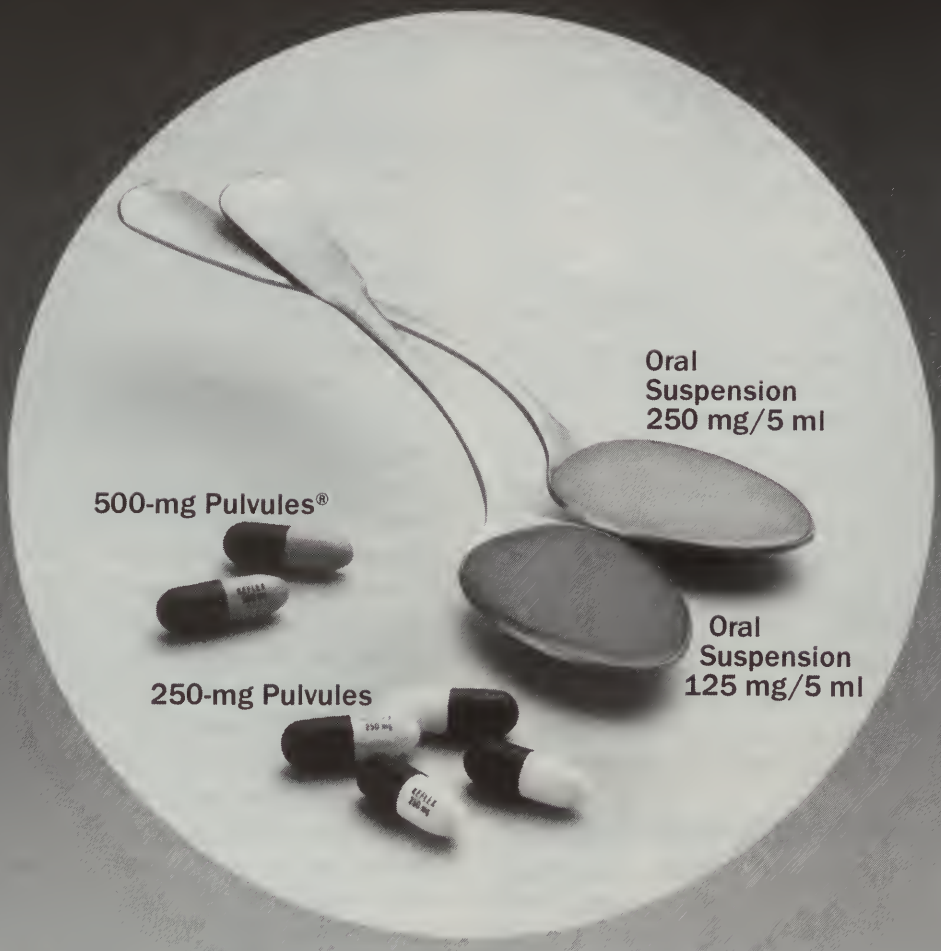
Tanning centers market their ability to provide tanning and to be immune from the "damaging rays." Somehow the absence of significant ultraviolet B (290-320nm) and the ability of ultraviolet A (>320nm) with its selective melanocyte stimulation exhonerates the tanning centers from responsibility for damage done. Yet what will the years bring? What will time spent under the new lights bring to our skin which already is being bombarded with less filtered sunlight and recreation time in which to be exposed? Are we living with this new "safe" modality the same way that we lived with the X-ray in shoe stores or the therapeautic radiation given for acne, psoriasis, eczema, etc? Next decade will we be critical of our predecessors as the fruit of this new generation of tanning centers blossoms into untold medical maladies?

Forewarned! Beware! Perhaps Poison!

Better to recommend that time spent outdoors in our chosen recreational or work activities with proper attire and reasonable protection using sunscreens will permit us to enjoy what the temperate climate has to offer instead of compromising our skin's integrity and perhaps our longevity.

Stephen Z. Smith, M.D.

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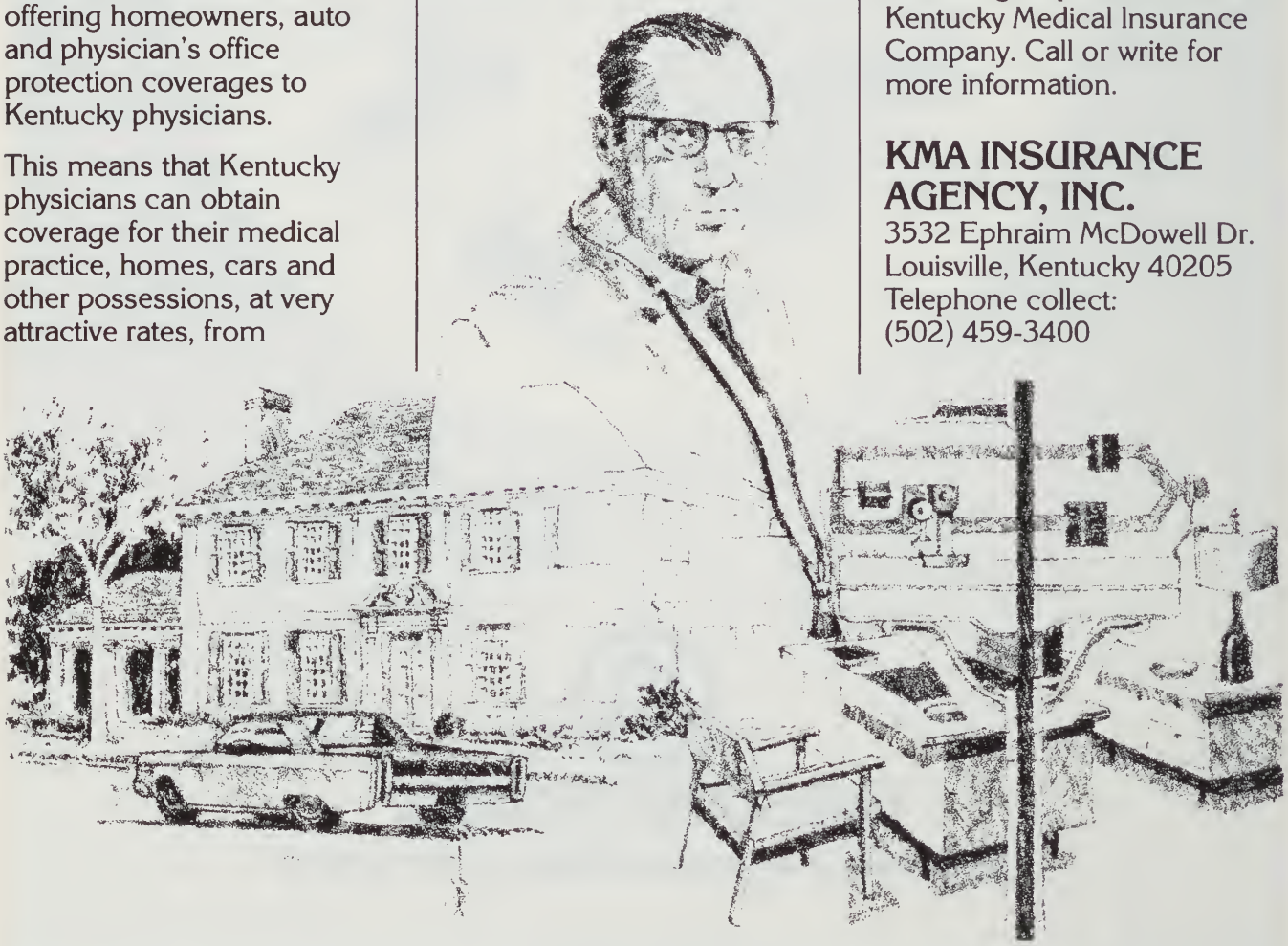
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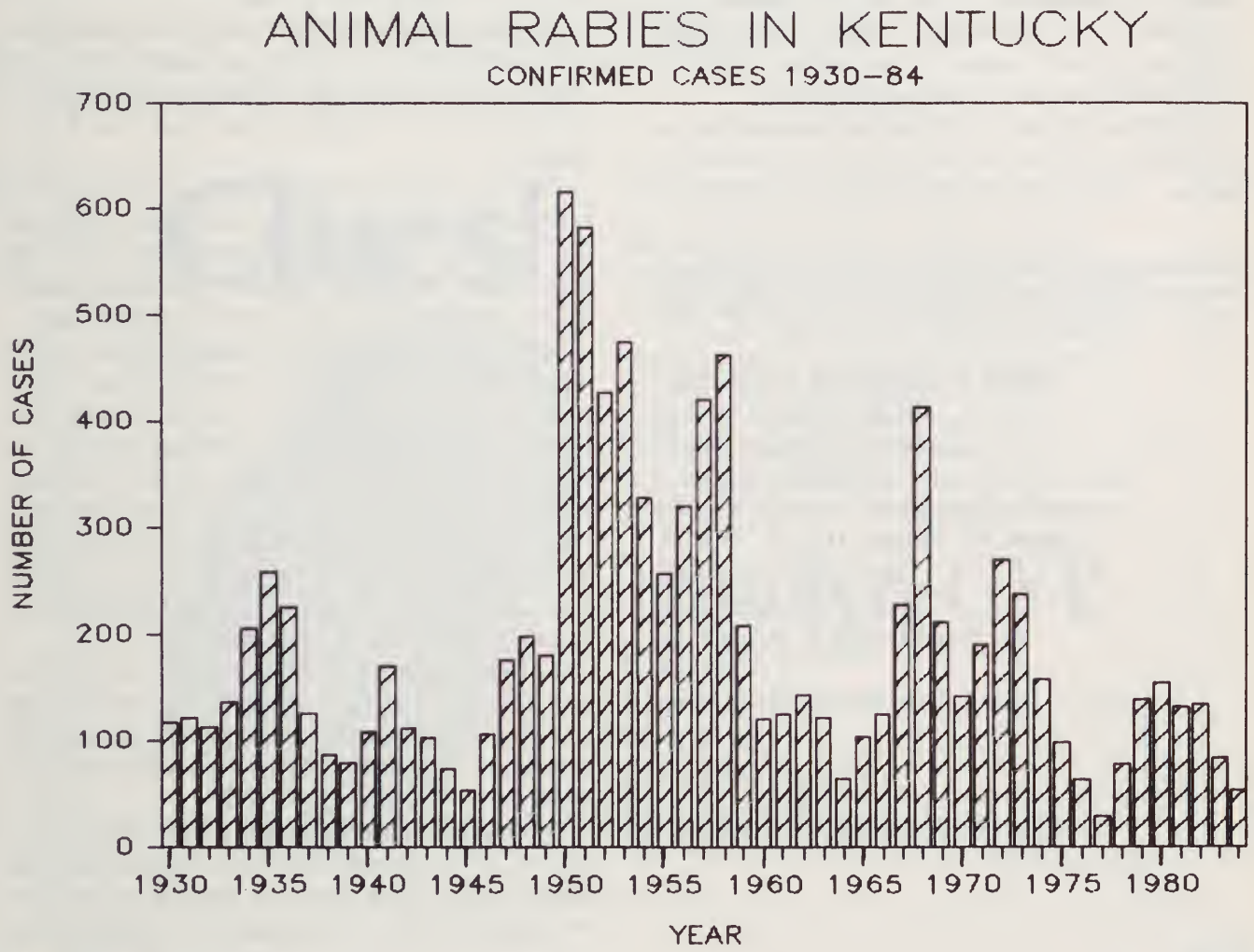
LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To The Editor:

The article on rabies by Hayne *et al* contained a great deal of information and was appreciated. However, we feel it is important to clarify and update several points made in the article.

We disagree that Kentucky has had a recent "remarkable" increase in cases of animal rabies. To the contrary, there has been a remarkable decline in laboratory-confirmed cases since the decade of the fifties when the average annual number of positive animals was 410. Comparable figures for the sixties, seventies and thus far for the eighties are 166, 140, and 111, respectively. Examination of these longer interval data is much more revealing than the shorter intervals selected by Hayne *et al* because animal rabies tends to peak at approximately 10-year intervals (Figure 1). Further, the selected baseline year in Hayne's article was 1977, the nadir of the current cycle with the lowest number of rabies cases ever recorded in Kentucky since records have been kept (1930). It is also pertinent to mention that the downward trend in incidence since the last peak in 1980 (154 cases), which is readily apparent in Figure 1 in Hayne's article, continued through 1984 with only 53 cases, the second lowest total ever re-



corded. We agree that animal rabies in Kentucky is a matter of concern, but disagree that there has been a recent "ominous trend of increasing animal rabies" as is true for certain other areas of the nation, especially the mid-Atlantic states due to the continuing epizootic of raccoon rabies.

According to the latest Immunization Practices Advisory Committee (ACIP) recommendations regarding rabies prevention, there is **no** need to perform antirabies serology (except in the immunocompromised) after pre-exposure prophylaxis with intramuscular (IM) **or** intradermal (ID) human diploid cell vaccine (HDCV). Further, persons who have received such IM or ID preexposure prophylaxis without post-vaccination serologic titers need receive only two doses of IM HDCV on days 0 and 3 with **no** rabies immune globulin.

Finally, we feel that a point made by Hayne *et al* warrants further emphasis, *ie* the quarantining of a wild or an unowned domestic animal is not recommended in the event of a human exposure. Euthanizing any such animal with submission of the head for laboratory examination is the recommended course. This is especially true for wild animals because signs of rabies in these animals cannot be interpreted reliably.[2]

Our office (502-564-3418) provides consultation and information to physicians and others with questions on rabies.

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Martin L. Tepper, M.D., M.H.Sc.
Division of Field Services
Centers for Disease Control
EIS Officer located at
Kentucky Department for Health Services
Joseph W. Skaggs, D.V.M., M.P.H.
Medical Epidemiologist
Division of Epidemiology
M. Ward Hinds, M.D., M.P.H.
Director
Division of Epidemiology

To The Editor:

My greatest moment in medicine was one of an astute diagnostic triumph, reached after 60 seconds of history taking, no lab work, but predicated upon "open-eyed" careful observation and close listening.

This case is not about some exotic aspect of medicine but about a classical case whose diagnosis somehow eluded several practitioners, possibly because of errors of haste, not listening, and not observing as carefully as they should.

Twenty years ago a 29-year-old gravida 111, para 111, poorly developed, almost emaciated, 87 pound white female from middle class rural background was presented to my office in my second year of practice. Her husband accompanied her because of her general weakness and because he wanted to warn me about her sensitivity to medicine. This was her first visit to my office.

Her chief complaint was a simple one, that of diarrhea, but a "red herring" at that.

I reassured the family that I would treat that disorder but I exclaimed, "I see before me someone who is seriously and chronically ill: Is there not something you haven't told me?" Maybe she has cancer or T.B., I thought.

Then the husband matter of factly pointed out, "She has been that way ever since she delivered our last baby four years ago and almost hemorrhaged to death." He even pointed out that the sisters of the small Catholic Hopital had given last rites to this Pentecostal lady.

Several pints of blood were transfused, the cervical bleeding site was repaired, and she recovered only to slowly develop the picture of a tanned looking, emaciated, weak, lethargic person who had lost her secondary sexual characteristics, loss of axillary and pubic hair, atrophy of breasts, having no menses since delivery, and intolerant of cold weather, I shall never forget that handshake on her first visit. It was dry, leathery, cold, and felt very reptilian as if it belonged to an alligator, when I first met her that day.

As soon as the husband blurted out that "She has been that way ever since she delivered our last baby and almost hemorrhaged to death," I declared very proudly and confidently, "Your wife has Sheehan's Disease."

My diagnosis was confirmed at a large Medical Center and it was determined that her anterior pituitary gland had been 95% destroyed and had rendered her secondarily hypothyroid, hypogonadal, and hypoadren-

ocorticoid because it was sensitized to hemmorrhagic shock by her pregnancy.

The first diagnostic opportunity had been missed by her obstetrician and by the surgeon because this disorder could have been predicted and anticipated. The diagnosis eluded her family physician for four more years. During this time the patient had been persuaded by family and friends to seek help from specialists in our state's largest city. She alleges that her husband was told to feed her the best of food and give her tender loving care by that examiner. This patient went four years undiagnosed and untreated and through those many years of unnecessary debilitation.

This condition secondarily touched so many lives in this one family. It left a husband without a wife, three little children without a mother, and a garment factory without a worker. Often the small children would summon their father from the back of the farm because of a medical crisis of their mother. This lady who usually attended church four times a week became regularly listed on the prayer list of the seriously ill.

To me this case reminds us in obstetrics and general medicine the importance of standing back far enough to get the whole picture of the patient, not permitting yourself to be misled by a presenting chief complaint that could be a red herring such as "I have the flu," or "I need a penicillin shot," etc.

It points out the need to slow down and use all our senses. Slow down to touch and look; slow down and listen. We were told in medical school that our patients would tell us what was wrong with them if we would only listen.

Charles D. Howard, M.D.
Springfield, KY.

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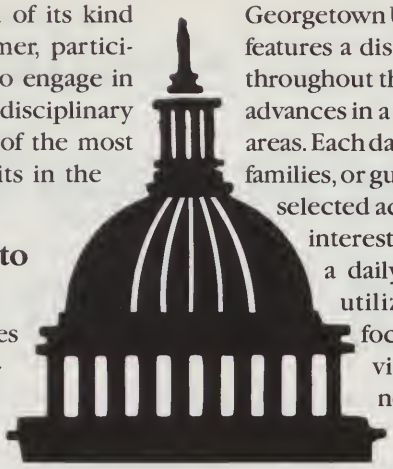
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Application for Scientific Exhibits

1985 Annual Meeting — Kentucky Medical Association

Galt House — Louisville, Kentucky — October 1,2,3

1. Title of exhibit _____

2. Name(s) of exhibitor(s) _____

   Address _____

   Professional title _____

3. Institution if other than exhibitor _____

4. Amount of backwall footage required _____
   (The draped booth has 4′ side walls. This footage should not be included in backwall footage required.)
   SHELF DESIRED? _____ (Table 2′ deep X width of backwall footage) Electrical outlet desired _____

5. Will summary printed matter be available or obtainable for the interested physician? _____

6. Indicate sources of assistance provided to you in connection with this exhibit _____

   _____

7. Has this exhibit been displayed before? If so, when & where? _____

   _____

8. It is required that you attach a rough sketch or photograph and a brief outline of your exhibit to include: (a) content of the presentation, and (b) the method, eg., equipment to be used.

Date _____

_____
Signature of Applicant

Fill Out and Mail to:

RICHARD A. KIELAR, M.D., Chairman
Scientific Exhibits Committee
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

The Kentucky Medical Association welcomes and supports scientific exhibits as a facet of continuing postgraduate education.

Applications for space should be received before June 1, 1985

- **KMA provides, without cost to the exhibitor, one 2 ft. Table as shelving, bracket lights and a title sign.**
- **Spotlights, view boxes, furniture, decorations, etc., may be furnished by the exhibitor or may be rented, if desired, by applying directly to the George E. Fern Company, 328 Louisville Air Park, Louisville, Kentucky 40213.**
- ***Commercial* exhibit materials and handouts are prohibited in the Scientific Exhibit area.**
- **Transportation and erection costs are the responsibility of the exhibitor.**
- **Exhibit *must be attended* during intermissions to answer physicians' questions. It is also desirable to have someone in attendance throughout the program.**
- **Equipment which will create noise must not be used during the general sessions and, at other times, must be controlled by head or earphones or a muffling device.**
- **Exhibit must be dismantled and removed by 4:00 P.M., Thursday, October 3, 1985.**
- **Exhibit space is *strictly limited* to footage and space allotted. *No* exhibit may extend into the aisle.**
- **The Galt House and the Kentucky Medical Association or its agents cannot guarantee against loss or damage and will assume no liability for damages nor guarantee the exhibitor against loss of any kind. The exhibitor agrees, with the Association, to be responsible to the Galt House for damages that may occur as a result of the exhibitor's use of the *facility*.**

ACCREDITATION

KAFP allows one credit hour for each hour of participation and presentation of scientific exhibits up to 15 hours. AMA allows up to 10 hours for AMA Category I credit.

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INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae*) and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae*; Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci (*S. faecalis*).

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS: *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro*. Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

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Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Hematologic — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structure infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h). For dosage recommendations in patients with impaired renal function, consult package insert.

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae*: 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

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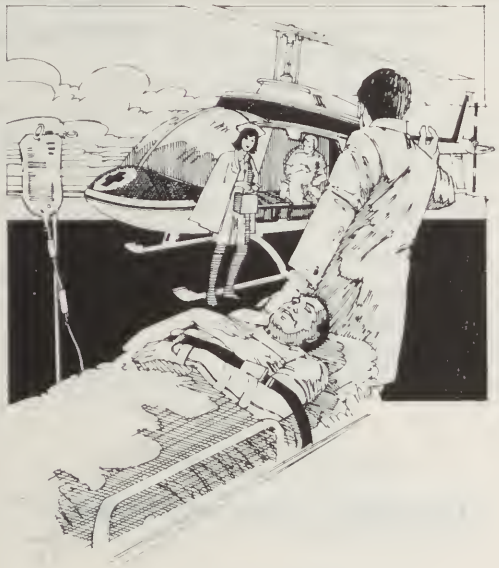
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TRACK I

Tuesday, June 4, 1985

Morning Session
Theme: "*BURNS*"

8:00 a.m. Registration

8:40 a.m. Welcome and Orientation
Opening Remarks
E. T. Mays, M.D., Chairman, Somerset
Emergency Medical Care Seminar Committee
Kentucky Medical Association
Moderator: Wally O. Montgomery, M.D., Paducah

9:00 a.m. "*Early Assessment & Field Management of Burns*"
Dennis Sullivan, Paramedic, Louisville

9:20 a.m. "*Eye Burns and Injuries*"
Peter C. Campbell, Jr., M.D., Louisville

10:00 a.m. COFFEE BREAK

10:20 a.m. "*Electrical Burns*"
Joseph C. Banis, Jr., M.D., Louisville

10:40 a.m. "*Industrial Burn Prevention*"
John Keith, Safety Director & Industrial Hygienist

11:00 a.m. "*Initial Burn Management*"
Hiram C. Polk, Jr., M.D., Louisville

11:20 a.m. "*Hemodynamic Affects of Air Transport*"
Marie Henson, R.N., B.S.N., C.E.N., STAT Flight, Louisville

11:45 a.m. LUNCHEON
GUEST LUNCHEON SPEAKER
"*Future of Emergency Medical Services*"
James O. Page, J.D., Solna Beach, California
President & Publisher, Journal of Emergency Medical Services (JEMS) author of Paramedic

Afternoon Session

2:00 p.m. Manual Skills Workshop
Rear Parking Lot
Louisville Fire Department
"*Fires & Fire Extinquishment*:"
Major Larry Atwell

3:00 p.m. "*Ice Cream with the Experts*:"
Participants may choose appropriate table.
Table Discussion Leaders:

1. "*New Equipment & Helpful Hints in the Emergency Department*"
   Ree Murakami, R.N., B.S.N., C.E.N., Louisville
   Cheryl Westbay, R.N., C.E.N., Louisville
2. "*Legal Dilemmas of Pre-Hospital Care*"
   James H. Shewmaker, J.D., EMT-P, Louisville
   James O. Page, J.D., Solana Beach, California
3. "*Hospital Legal Dilemmas and Hospital Ethics Committees*"
   Frank B. Alvey, M.D., J.D., Ph.D., Louisville
4. "*Decontamination of Nuclear Accident Victims*"
   Wally O. Montgomery, M.D., Paducah
5. "*Chemical Abuse in Youths*"
   Robert H. Stewart, M.D., Louisville

6. "*Environmental Emergencies*"
   Steven I. Ackerman, M.D., Louisville
7. "*Burn Care*"
   Joseph C. Banis, Jr., M.D., Louisville
8. "*Tips in Pediatrics*"
   Vicki Harwick, R.N., M.S.N., Louisville
   Cheri Claypool, R.N., CEN, Louisville

4:15 p.m. Adjournment

4:20 p.m. OPEN MEETING: Kentucky Emergency Nurse Association
"*Certification of Emergency Nurses (C.E.N.)*"

4:20 p.m. OPEN MEETING: Kentucky Chapter, American College of Emergency Physicians

Wednesday, June 5, 1985

Morning Session

Theme: "*OB-GYN EMERGENCIES*"

8:00 a.m. Registration

8:50 a.m. Opening Remarks
Moderator: Frederick E. Finger, II, M.D., Bowling Green

9:00 a.m. "*Diagnosis of an Ectopic Pregnancy*"
Douglas O. Peeno, M.D., Louisville

9:20 a.m. "*Pelvic Infections*"
Joseph S. Sanfilippo, M.D., Louisville

9:40 a.m. COFFEE BREAK

10:00 a.m. "*Trauma in the Pregnant Patient*"
Janet Gren Parker, R.N., M.S., Vanderbilt Medical Center, (Author of *Emergency nursing: A guide to Comprehensive Care*)

10:20 a.m. "*Legal Aspects of Rape & Sexual Abuse*"
James H. Shewmaker, J.D., EMT-P, Louisville

10:40 a.m. "*Field Deliveries*"
Becky Samples, R.N., Louisville

11:00 a.m. "*Transport & Resuscitation of the Neonate*"
M. Douglas Cunningham, M.D., Lexington

11:20 a.m. "*Sexual Abuse of Children*"
Mary Smith, M.D., Louisville

11:45 a.m. LUNCHEON
GUEST LUNCHEON SPEAKER
"*Family Violence*"
George R. Nichols, M.D., Louisville
Forensic Pathologist—Kentucky Medical Examiner

Afternoon Session

(Concurrent Sessions)

2:00 p.m. Workshop Sessions (Choose Two Sessions)
1. "*Assessment of Comatose Patient*"
   Janet Parker, R.N., Nashville, Tennessee
2. "*Mock Disaster/Trauma Assessment*"
   (Limited to 40 participants each session)
   Donna Hill, R.N., C.E.N., Louisville
   Benet Alexander, EMT-P
3. "*Management of Cervical Spine Injuries/KED*"
   Dora Little, R.N., B.S.N., Louisville
4. "*Economic Impact of Prospective Payment System (DRG) on Emergency Medical Care*"
   Stuart Graves, M.D., Louisville
5. "*Pediatric Trauma/Pediatric Emergencies*
   Diller B. Groff, M.D., Louisville

3:00 p.m. DESSERT BREAK & SWITCH SESSIONS

3:20 p.m. Continuation of Workshops

4:15 p.m. Adjournment

4:20 p.m. Tour of Emergency Departments (OPTIONAL)

Thursday, June 6, 1985

Morning Session

Theme: "*PROBLEMS IN TOXICOLOGY*"

8:00 a.m. Registration

8:45 a.m. Opening Remarks
Moderator: Jan Roby, R.N., C.E.N., Louisville

9:00 a.m. "*Emergency Response to Hazardous Materials Incidents*"
Rodney Rabey
State Fire Marshall's Office

9:20 a.m. "*Confined Space Extrication*"
John Ridge, Safety Coordinator, MSD

9:40 a.m. COFFEE BREAK

10:00 a.m. "*Household Poisonings*"
George C. Rodgers, Jr., M.D., Louisville

10:20 a.m. "*Tricyclic Compounds*"
Ron Weiss, M.D.

10:40 a.m. "*Management of Skin Injuries Due to Toxic Materials*"
S. Randolph Scheen, M.D., Louisville

11:00 a.m. "*Decontamination of Hazardous Materials Victims*"
William A. Wetter, III, BS/EMT-P, Louisville

11:45 a.m. Ambulance Competition Award Presentations
Adjournment for Afternoon Activities
Luncheon (for those not attending Churchill Downs)
"*Communication from the Field to the ER: A Smooth Transition*"
Deve Vetter, R.N., C.E.N., B.S.

1:20 p.m. Adjournment

Registration

Name _____

Address _____

City _____ St. _____ Zip Code _____

Please register me as follows:

_____ June 4
_____ June 5
_____ June 6

_____ KMA Member
_____ Non-Member MD
_____ Nurse
_____ EMT
_____ Paramedic
_____ Dentist
_____ Other (Specify)

Pre-registrants will be eligible for a drawing for a ride on SKYCARE or STAT FLIGHT Helicopters. Winners will be announced June 4.

Please complete the following:

WEDNESDAY, JUNE 5 *(choose two)*
_____ Assessment of Comatose Patient
_____ Mock Disaster/Trauma Assessment
_____ Management of Cervical Spin Injuries
_____ Economic Impact of Prospective Payment System (DRG) on Emergency Medical Care
_____ Pediatric Trauma/Pediatric Emergencies

THURSDAY, JUNE 6 *(choose one)*
_____ An Afternoon at Churchill Downs
_____ Luncheon and presentation

Please return to:
KENTUCKY MEDICAL ASSOCIATION
3532 Ephraim McDowell Drive
Louisville, KY 40205
(502) 459-9790

Fees

Includes all lunches; workshops; break refreshments; and entrance to exhibits. Those individuals registering for the Thursday session will have their choice of a trip to Churchill Downs or attending the luncheon and presentation entitled "Communication from the Field to the ER: A Smooth Transition"

KMA Members, Nurses, EMT's, Paramedics, Dentists
$20.00 a day

Non-KMA-Member Physicians
$40.00 a day

Wednesday Afternoon Workshop

Simultaneous concurrent sessions will be presented. You may choose two of five sessions. First session from 2:00 p.m. to 3:00 p.m., and second session for 3:20 p.m. to 4:15 p.m. Please indicate your choices on the registration form.

Special Hotel Rates

$41.00 Single **$47.00 Double**

Contact: Executive West Hotel
Freedom Way at Fairgrounds
Louisville, KY 40209
(502) 367-2251

Note: Please indicate that you will be attending the Emergency Seminar.

Thursday Afternoon Activities

Following a morning of scientific presentations, you may choose an afternoon at Churchill Downs (Deadline for reservations May 15) or attend the luncheon and presentation entitled, "Communication from the Field to the ER: A Smooth Transition," at the hotel. Lunch will be included with each activity. The cost of these activities is included in the Thursday registration fee. Participants must furnish their own transportation to the track. RESERVATIONS FOR CHURCHILL DOWNS ARE REQUIRED. Maps are available to Churchill Downs.

Accredited for Continuing Education for the following:

NURSES: This course has been approved by the Kentucky Board of Nursing for Contact Hours. Completion of this course is applicable as a requirement of the Kentucky Board of Nursing in fulfillment of the mandatory educational requirements for relicensure. Objectives for the course content are available on request.

June 4 – **6 Contact Hours**
Provider Offering #2-00001-86-002-2-1-5

June 5 – **6 Contact Hours**
Provider Offering #2-00001-86-003-2-1-5

June 6 (morning) – **3 Contact Hours**

June 6 (afternoon) – 1 Contact Hour
Provider Offering #2-00001-86-005-2-1-5

Provider Offering #2-00001-86-004-2-1-5

PARAMEDICS & EMTS: Continuing education credit has been applied for from the National Registry of Emergency Medical Technicians and CHR for the EMT Program in Kentucky.

FAMILY PHYSICIANS: Credit has been applied for from the American Academy of Family Physicians.

EMERGENCY PHYSICIANS: Credit has been applied for from the American College of Emergency Physicians for ACEP Category I Credit.

PHYSICIANS: Credit has been applied for under Category I of the AMA Physician's Recognition Award.

TRACK II

Advanced Cardiac Life Support Program

June 4 & 5, 1985

Executive West Motel

You must be currently certified in BASIC CARDIAC LIFE SUPPORT before you attend the course. You will be required to show proof of your certification when you come to the course. An ACLS textbook and materials needed for the course will be provided. (The program begins on June 4 at 7:30 a.m. with adjournment at 9 p.m. On June 5, the program begins at 8 a.m. and adjourns at 5 p.m.

Registration

Please register me for the ACLS Program as follows:

Name _____

Address _____

City _____ St. _____ Zip Code _____

Deadline for Registration:

This course will be limited to 30 Attendees and registration must be made by May 15. There will be no refunds made after May 15 for any cancellations.

_____ KMA Member
_____ Non-member MD
_____ Nurse
_____ Paramedic
_____ Dentist
_____ Other (Specify)

FEES:

KMA members, nurses, EMT's, paramedics, dentists

$125

Non KMA-member physicians

$175

Accredited for Continuing Education for the following:

NURSES: This course has been approved by the Kentucky Board of Nursing for Contact Hours. Completion of this course is applicable as a requirement of the Kentucky Board of Nursing in fulfillment of the mandatory educational requirements for relicensure. Objectives for the course content are available on request.

Completion of ACLS Program (June 4-5) –
15 Contact Hours
Provider Offering #2-00001-85-001-2-1-5

PARAMEDICS: Continuing Education Credit has been applied for from the National Registry of Emergency Medical Technicians.

FAMILY PHYSICIANS: Credit has been applied for from the American Academy of Family Physicians.

EMERGENCY PHYSICIANS: Credit has been ap-

plied for from the American College of Emergency Physicians for ACEP Category I Credit.

PHYSICIANS: Credit has been applied for under Category I of the AMA Physician's Recognition Award.

TRACK III

Management of Hazardous Materials and Contaminated Patients

June 4 & 5, 1985

Executive West Motel

Course will include the following topics:

1. Introduction to hazardous materials accidents
2. Management of HM Accident Victims
3. Care of the HAZMAT Accident Patient
4. Available Resources/Media Management
5. Development of a Response Plan
6. Group Practical Exercise/Demonstration

DEADLINE FOR REGISTRATION:

This course will be limited to 30 attendees and registration must be made by May 15. There will be no refunds made after May 15 for any cancellations.

Fees

Fee includes all lunches, break refreshments, and HAZMAT Textbook and materials.

KMA Members, Nurses, EMT's, Paramedics, Dentists

$50

Non-KMA-Member Physicians

$70

Accredited for Continuing Education for the following:

NURSES: This course has been approved by the Kentucky Board of Nursing for Contact Hours. Completion of this course is applicable as a requirement of the Kentucky Board of Nursing in fulfillment of the mandatory educational requirements for relicensure. Objectives for the course content are available on request.

Completion of HAZMAT Course (June 4 & 5) –
12 Contact Hours
Provider Offering #4-0005-86-054-2-2-2

PARAMEDICS & EMTS: Continuing education credit has been applied for from the National Registry of Emergency Medical Technicians and CHR for the EMT Program in Kentucky.

FAMILY PHYSICIANS: Credit has been applied for from the American Academy of Family Physicians.

EMERGENCY PHYSICIANS: Credit has been applied for from the American College of Emergency Physicians for ACEP Category I Credit.

PHYSICIANS: Credit has been applied for under Category I of the AMA Physician's Recognition Award.

Registration

Name _____

Address _____

City _____ St. _____ Zip _____

_____ KMA Member
_____ Non-member MD
_____ Nurse
_____ EMT
_____ Paramedic
_____ Dentist
_____ Other (Specify)

Please answer the following questions:

Do you currently handle hazardous materials in your job?
No [ ] Yes[ ] If yes, what? _____

Does your employer have a hazardous materials response plan?
No [ ] Yes[ ] Not sure[ ]

If you have a plan, has your plan ever been rehearsed?
No [ ] Yes[ ] Not sure[ ]

If you have a plan, has your plan ever been used in a real situation?
No [ ] Yes[ ] Not sure[ ]



INTRODUCING THE NEW KODAK EKTACHEM DT60 ANALYZER

It's the first affordable, easy-to-use, typewriter-sized analyzer that brings increased convenience, efficiency, and cost-effectiveness to physicians in solo or group practices, such as internal medicine, family practice, pediatrics, obstetrics and gynecology—or anywhere laboratory tests are needed.

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to unease with use
into disease and abuse?
for Help Call
IMPAIRED PHYSICIANS
COMMITTEE
502-459-9790

P.R.N.
Marketing's Role in a Medical Practice

What is Marketing?

Marketing is oftentimes misunderstood for "advertising," "hard sell" or "promotional gimmicks." Steven W. Brown, President of the American Marketing Association, defines marketing as "putting ourselves very much in the shoes of the users of our services and trying to look at our services from their perspective."

Basically, the function of marketing analysis is to find out who your patients are and what they perceive their needs to be. Marketing strategy is to match your services to meet those needs. In other words, a physician (and more often his or her office staff) can create patient satisfaction through basic marketing, ie, becoming more customer-oriented.

Four Basic Elements of Marketing

Regardless of whether this is done by an individual practitioner using fairly simple methods or by a marketing specialist with highly sophisticated techniques, there are four basic steps to follow:

1. Research - This will help you know who your patients are - present and potential. Market research will also identify your competition, as well as referral sources. Demographic information is available from KMA, your local hospital, Chamber of Commerce, libraries, *etc.* For a list of addresses on where to obtain demographic information in Kentucky, contact Diane Maxey at the KMA Office.
2. Positioning or Place - Your research should lead you to find your "niche" in the marketplace. The outcome of your studies may indicate a need to open a satellite office. You may find that targeting your services to the aged or the athlete would increase your patientload. Your findings may even point to a change in location.
3. Product - This is the KEY element in marketing. Your product is the service you render in the care of the patient. However, in the minds of most patients, all doctors basically provide the same medical services. A recent national consumer survey indicates that factors that are very important to patients choosing a doctor are: the way the doctor discusses problems, how up-to-date the doctor is, the doctor's reputation and how warm, caring and kind the doctor is. A patient's choice of a physician is also based on other factors such as convenience of location, office hours, attitude of office staff, appearance of the office, etc. The study revealed that fees are of secondary importance. Research in this area can be done by the individual practitioner by surveying current patients, patients who have left the practice or referral sources.
4. Promotion - One law of marketing is to never be more aggressive than you need to be. Existing patients who are "satisfied customers" should be your best form of advertising for new patients. However, making your services known to existing and prospective patients is the lifeblood of a medical practice. Time-tested methods include patient information booklets and newsletters, welcome letters to new patients, educational materials, special attention to referring physicians and community involvement, to name a few. Maintaining patient loyalty is, in effect, "internal marketing," while attracting new patients is "external marketing."

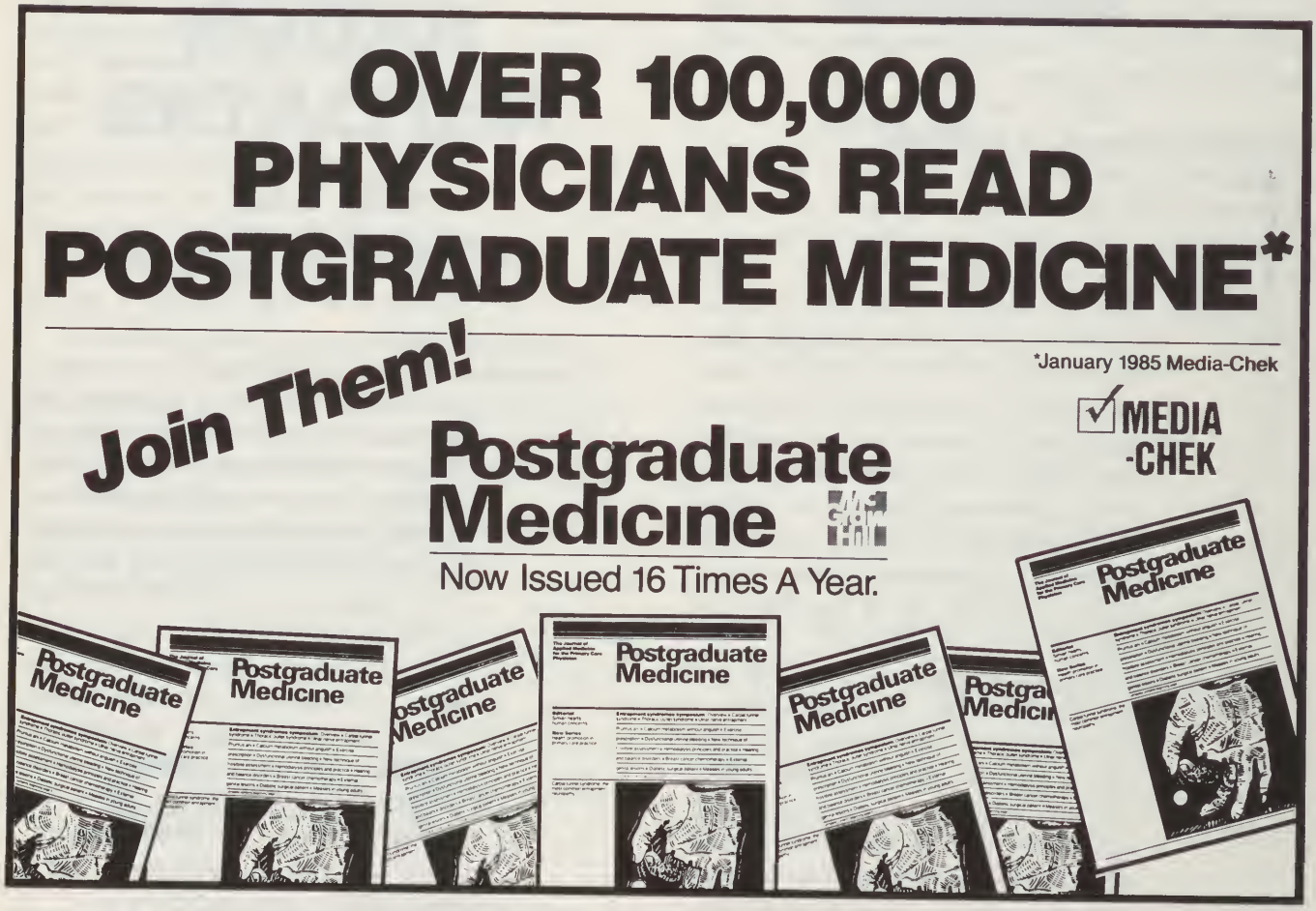
Marketing Has a Role in Your Practice

Marketing medical services is neither unprofessional nor demeaning. It uses a scientifically-oriented approach to preparing a business plan and helps the physician serve those who make up a practice's "market share" - patients, referring physicians and the hospitals and organizations which underwrite the costs of the care rendered.

By understanding and implementing the four basic elements of marketing, your practice will best be able to survive in the increasingly complex times ahead.

During the coming months, "P.R.N." will deal with specific examples and ways you can benefit by applying these marketing elements to your particular practice.

"P.R.N. - Practice Relations Notes" is edited by the KMA Member Services Department. Please direct any inquiries or specific problems to them at 3532 Ephraim McDowell Drive, Louisville, KY 40205.



Nominations Being Accepted for Three Annual KMA Awards

Nominations are being accepted for three awards which are presented each year at the KMA Annual Meeting to outstanding physicians and lay people.

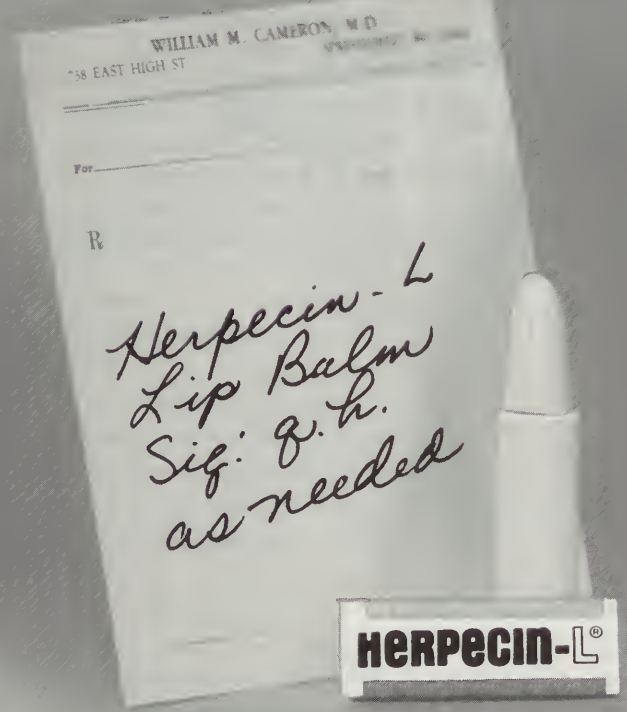
Nominees for the Educational Achievement Award are chosen from citizens of the Commonwealth of Kentucky who have made a significant contribution in medical or medically related education. Contributions in all areas of teaching, research, clinical application of medical practice and/or patient education are factors that will be considered. Recipients are chosen by the Continuing Medical Education Committee.

The Distinguished Service Award is presented each year to a physician in the state who has contributed to organized medicine or individual medical service, community health or civic betterment and medical research or distinguished voluntary military service. The nominee may qualify on any one or a combination of these points.

The Kentucky Medical Association Award is presented to an outstanding lay person in honor of his or her outstanding accomplishments in the field of public health and/or medical care. July 15 is the deadline for receiving nominations for the Distinguished Service Award and the Kentucky Medical Association Award. Recipients will be chosen by the Awards Committee.

Nominee material should include background and historical information about the nominee as well as justification for the nomination.

Dx: recurrent herpes labialis



"HERPECIN-L is my **treatment of choice** for perioral herpes." GP, NY

"HERPECIN-L appears to actually **prevent** the blisters . . . used **soon enough.**" DDS, MN

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"Used at **prodromal symptoms** . . . blisters **never formed** . . . remarkable." DH, MA

"(In clinical trials) . . . **response** was **dramatic. HERPECIN-L** . . proven **far superior.**" DDS, PA

"All patients claimed **shorter duration** . . . at **prodromal symptoms** . . . HERPECIN-L **averted** the attacks." MD, AK

OTC. *See P.D.R.* for information. For samples to make your own clinical evaluation, write: CAMPBELL LABORATORIES, INC., P.O. BOX 812-MD, FDR STATION, NEW YORK, N.Y. 10150

In Kentucky HERPECIN-L is available at all *Begley, Revco, SupeRx, Taylor Drug Stores* and other select pharmacies.

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Please take the time to make sure you're taking care of your personal needs.

Sincerely,

BUD ERNST

631 Lincoln Federal Bldg.
Fourth Avenue
Louisville, Kentucky 40202

A.P. LEE AGENCY, INC.

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PLEASE RETURN YOUR KENTUCKY PHYSICIANS CARE DATA INFORMATION CARDS



DATE: _____ COUNTY: _____

DOCTOR's Name: _____

Patient's Name: _____

Pt's Case No. _____ Age _____ Sex _____

DX: _____

Will pt. require additional visits? _____

Will pt. require referral to a specialist? _____

Usual & Customary charge for this service _____

Have you seen this patient before he/she was referred to you through this program? _____

Did you experience any problem with the referral system? _____

If so, specify _____

Information gathered from this program will be used to complete statistics on the scope of indigent care in Kentucky. The collection of this data is a significant part of KPC.

PLEASE RETURN

CLASSIFIED

All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication.

Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to:

The Journal of KMA
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

LEASE MEDICAL OFFICE SPACE
2780 square feet available, $10.75 per square foot. Located on Third Floor St. Joseph Office Park. Contact: Cardiology Associates of Lexington. Terri Sallee, Telephone (606)276-4429.

FREESTANDING EMERGENCY CENTER-KENTUCKY. Two full time physicians needed in June 1985 to staff privately owned freestanding emergency center in growing college town. Must be board eligible or equivalent qualifications in Emergency Medicine or Family Practice. Competitive salary and malpractice insurance provided. Send CV to Minor Emergi-Center PO Box 2840 Owensboro, KY 42301, or call (502)926-9999

VACATION RENTAL: Hilton Head. Palmetto Dunes Resort: 2088 sq. ft., poolside villa, sleeps 6, fireplace, wet bar, short walk to private beach, tennis, golf. Owner rates. (606) 269-9148.

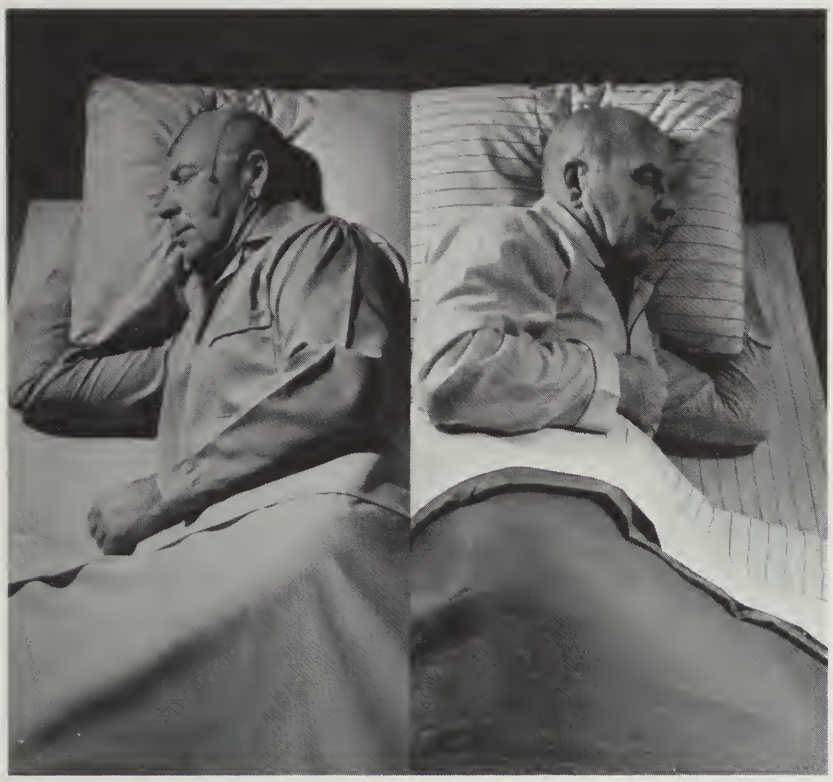
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THE COMPLETE HYPNOTIC PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset[1-6]
- More total sleep time[1-6]
- Undiminished efficacy for at least 28 consecutive nights[2-4]
- Patients usually awake rested and refreshed[7-9]
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy[2,5,10-12]

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

DALMANE® (IV)
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References: 1. Kales J *et al*: *Clin Pharmacol Ther 12*:691-697, Jul-Aug 1971. **2.** Kales A *et al*: *Clin Pharmacol Ther 18*:356-363, Sep 1975. **3.** Kales A *et al*: *Clin Pharmacol Ther 19*:576-583, May 1976. **4.** Kales A *et al*: *Clin Pharmacol Ther 32*:781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **6.** Kales A, Kales JD: *J Clin Pharmacol 3*:140-150, Apr 1983. **7.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mar 1977. **8.** Zimmerman AM: *Curr Ther Res 13*:18-22, Jan 1971. **9.** Amrein R *et al*: *Drugs Exp Clin Res 9*(1):85-99, 1983. **10.** Monti JM: *Methods Find Exp Clin Pharmacol 3*:303-326, May 1981. **11.** Greenblatt DJ *et al*: *Sleep 5*(Suppl 1):S18-S27, 1982. **12.** Kales A *et al*: *Pharmacology 26*:121-137, 1983.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

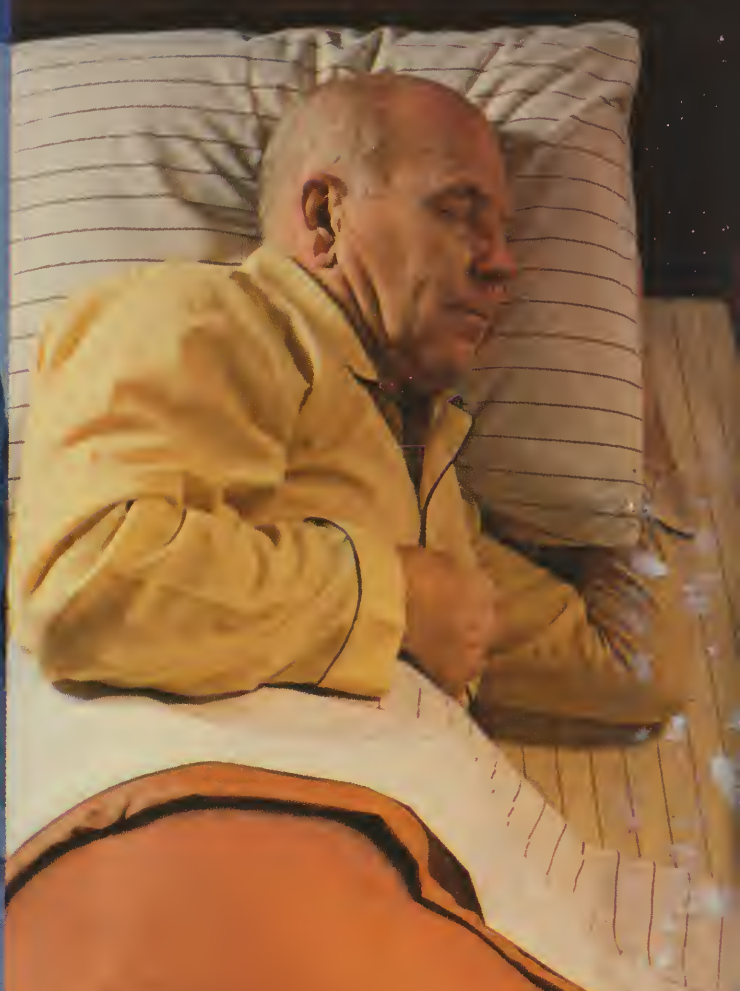
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DOCUMENTED IN THE SLEEP LABORATORY[1-5]...

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See preceding page for references and summary of product information.

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Kentucky Medical

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Of MEDICINE

Ephraim McDowell House
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Volume 83, Number 6 **June 1985**

There is a Name for
Quality Psychiatric Care

And Here's Where That



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Leadership Stands Out in Kentucky.







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Beds: 66
Psychiatric Staff: 4
Programs: Adolescent and Adult Addictive Disease

Other Programs: Counseling and Intervention Services in Louisville, KY

For further information about Charterton or admission procedures, contact:

Medical Director: Thomas Cassidy, M.D.
Hospital Administrator: Ralph Suratt

Charter Ridge Hospital

3050 Rio Dosa Drive
Lexington, Kentucky 40509
(606) 269-2325

Beds: 80
Psychiatric Staff: 24
Programs: Adult, Adolescent and Child Psychiatric; Adult Addictive Disease

For further information about Charter Ridge or admission procedures, contact:

Medical Director: Verner Stillner, M.D.
Hospital Administrator: Jim Button

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JOURNAL OF THE

Kentucky Medical

ASSOCIATION

Volume 83, Number 6 June 1985

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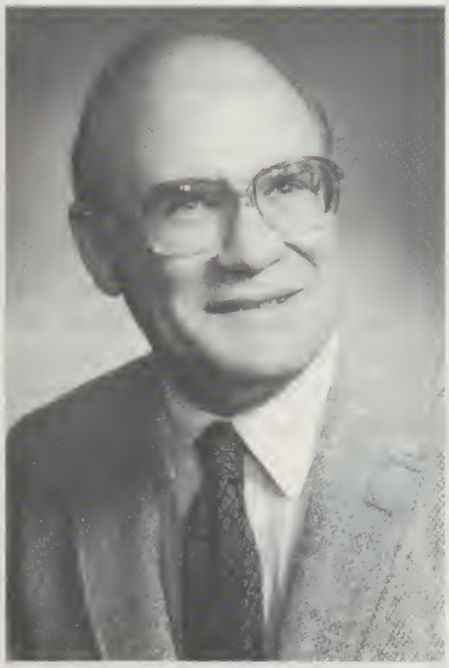
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PRESIDENT'S PAGE



I wrote my "senior theme" at Middlesboro High School on the Flexner report, that stimulus to a quantum leap in the quality of American medicine. Later in the year our class took a "Senior Trip" around Kentucky lasting two whole days. Our first stop was the McDowell House in Danville. I left with memories of the dark interiors of some of the rooms and nothing of the significance of the event which had taken place there. In that one year, I had touched on two Kentuckians who made singular contributions to our profession. It was to be years before I realized the significance of either work.

The Kentucky Medical Association owns McDowell House. When one talks to out-of-state physicians the significance of this shrine arises frequently. As recently as the last AMA meeting, the president of the Massachusetts Medical Society spoke to me about visiting us and he added, "I want to be sure and go to the McDowell House."

It has been forty-six years since the dedication of the Ephraim McDowell - Jane Todd Crawford Memorial Home in Danville on May 20, 1939. On that day a special session of the Kentucky State Medical Association met with the dedicatory address by Doctor Irvin Abell of Louisville, President of the American Medical Association. Following that, Governor A.B. Chandler gave an address of acceptance.

Just four years previously, Doctor C.C. Howard of Glasgow had presided at the Jane Todd Crawford memorial service to dedicate her monument erected by the Kentucky State Medical Association in Danville. President Howard noted that this marked the first recognition ever given a patient by an organized unit of the profession.

The avowed purpose of the Association in these two actions was to assure that coming generations might have a true and permanent record of what was done and said on that "historically unique occasion."

The greatest of Kentuckians said in the briefest of his speeches, "The world will little note, nor long remember, what we say here, but it can never forget what they did here." For it was in Kentucky, on Christmas day, 1809, that Doctor Ephraim McDowell of Danville became the first surgeon to successfully invade the peritoneum and remove an ovarian tumor. The credit for calling this to the attention of the world goes to Doctor Samuel Gross, Professor of Surgery at the University of Louisville, who in 1852 wrote a paper on the subject.

Although Doctor McDowell had waited until he had three cases to seek scientific publication, he was greeted with caustic, sarcastic, and extremely critical reviews in Philadelphia and London. A few years thereafter the *London Medico-Churgical Review* was constrained to say, "a back settlement of America, Kentucky, has beaten the mother country, nay Europe itself with all the boasted surgeons thereof . . . we ask pardon of God and of Doctor McDowell, of Danville." Some things never change.

The other part of the story was Jane Todd Crawford, the patient who was noted by her doctor to be making her bed on the fifth postoperative day, thus presaging early ambulation by 130 years. She lived for 32 years more, and her youngest son, the Honorable Thomas Howell Crawford, became mayor of Louisville in 1859-60.

It was to be a third of a century before Doctor McDowell's work could be duplicated successfully in London. Once again, Kentucky physicians can look to the wonder of our past for direction to the future.

I think it important to note that your Association honored **both** patient and physician and thereby honors all of us worthy to be members today of the Kentucky Medical Association. In earlier pages I have mentioned other illustrious members of Kentucky medicine. Since this Association was begun by Doctor William Sutton of Georgetown, we have had a parade of them.

It is well-known that we continue to have one of the largest state meetings in the country. The combination of a scientific and business format has served us well. To further increase our sense of association, your Board of Trustees has approved a McDowell-Crawford Ball to be held on Sunday, September 29, 1985, to start the activities of the Annual Meeting.

Our medical heritage in Kentucky is a great one. Both of my senior year acquaintances made vast contributions to the quality of care in this country. Our Association is working very hard on access to care. Your officers would like to invite you to celebrate the heritage of the Kentucky Medical Association at a time when we must look forward together to the interest of our patients. That's the best and greatest reason to belong to organized medicine.

"See that ye hold fast the heritage we leave you, yea, and teach your children that never in the coming centuries may their hearts fail or their hands grow weak."

Inscription in window, Salisbury Cathedral

Charles C. Smith, Jr., M.D.

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Conversion of Atrial Fibrillation to Normal Sinus Rhythm During Hyperkalemia

ARMAND H. ROTHSCHILD, M.D., M.R. SRIDHARAN, M.D., B. GONDI, M.D.
G.S. SOHI, M.D. and NANCY C. FLOWERS, M.D.

A case of conversion of atrial fibrillation to normal sinus rhythm associated with hyperkalemia is presented. Differences in sensitivity to extracellular potassium exist among myocardial cells with atrial myocardium being more sensitive than ventricular myocardium. Hyperkalemia sufficient to alter reentry mechanisms or render myocardium inexcitable in the atria may leave the ventricles less affected. In addition, there is a biphasic effect of rising extracellular potassium level on conduction and excitability of cardiac tissues. This is reviewed and several theories explaining the conversion of atrial fibrillation to normal sinus rhythm are discussed. In addition to the effects seen in atrial myocardium, this case also demonstrates the effects of potassium on atrio-ventricular conduction. The electrophysiological basis of these clinical findings is also discussed.

The effects of hyperkalemia on the electrocardiogram (EKG) are numerous, such as peaking of T waves, QRS prolongation, atrioventricular (A-V) conduction disturbances, and disappearance of the P wave. Using microelectrode techniques and intracavitary electrical recordings, these changes have been correlated to alterations of the monophasic action potential. Since the early 1960's, it has been known that differences in sensitivity to potassium exist among cells; atrial myocardial cells being more sensitive than ventricular myocardium, with pacemaker cells and specialized conduction tissues being more resistant.[1-4] In this report, we would like to highlight this differential effect of potassium in a patient with atrial fibrillation who converted to normal sinus rhythm in association with acute hyperkalemia.

Case Report

A 44-year-old white male with a history of alcohol abuse was admitted with decompensated cirrhosis and increased ascites. He had a myocardial infarct seven years prior to admission, was found to have significant three-vessel coronary artery disease and underwent triple vessel bypass grafting. Postoperative depression exacerbated his drinking problem. Ascites and cirrhosis became a problem three years prior to the present admission. Over the previous month he had gained about 20 pounds, and complained of increasing abdominal girth and shortness of breath. He was admitted for control of ascites. Medicines on admission included digoxin 0.25 mg per day, spironolactone 50 mg po/bid and furosemide 40 mg po per day.

Physical examination revealed a pale white male with muscle wasting. The blood pressure was 110/80 mm Hg, the pulse was 80 and irregularly irregular, respirations 20 and weight 150 pounds. There was no jugular venous distention at 30° elevation. The lungs were clear to auscultation. Examination of the heart revealed normal first and second heart sounds without murmur or gallop. The abdomen was distended with evidence of free fluid; the liver and spleen were not felt. There was no peripheral edema. The chest x-ray revealed slight cardiomegaly with some interstitial edema; there were no effusions. The EKG demonstrated atrial fibrillation with a ventricular response of 80, right bundle branch block (RBBB) with a QRS duration of 0.16 seconds, and an old anteroseptal myocardial infarction. An EKG

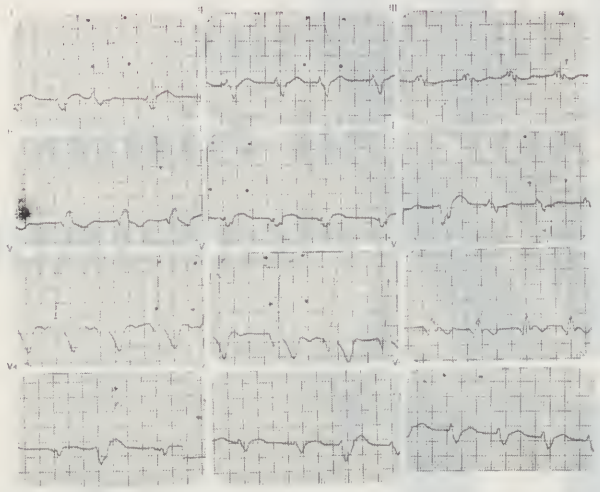


Fig 1: An EKG obtained on 1/10/83 at 10:30 P.M. shows atrial fibrillation with right bundle branch block, an old anteroseptal myocardial infarction and ectopic ventricular complexes. The serum potassium was 5.1 mEq/L. Standardization equals 1 mV in limb leads, 2 mV in chest leads.

recorded six months earlier was identical except for the presence of sinus rhythm. Laboratory work showed the serum sodium was 137 mEq/L, the potassium was 3.9 mEq/L, the urea nitrogen 14 mg/100 ml, the creatinine 1.5 mg/100 ml, the serum digoxin level 0.9 ng/ml with the prothrombin time 15/12 seconds, the alkaline phosphatase 238 IU/L, the SGOT 178 IU/L and the LDH 172 IU/L.

The patient was placed on a low sodium diet and the spironolactone was increased to 50 mg tid. When the serum potassium rose to 5.1 mEq, the spironolactone was decreased to 50 mg bid. He lost 15 pounds over the next 10 days. During the evening of the 12th hospital day he had a syncopal episode with possible tonic movements. Vital signs at the time showed a blood pressure of 95/0 mm Hg, an irregularly irregular pulse of 90 with no orthostatic changes. Serum potassium was 5.1 mEq, the serum digoxin level was 1.9 ng/ml, creatinine was 1.4 mg/100ml, and the urea nitrogen was 24 mg/100ml. The EKG showed no change from admission (Figure 1). The patient was put at bed rest and 900 mg of phenytoin was given in three divided doses over the next six hours. Lethargy persisted until the next morning. At that time the blood pressure was 80/0 mm Hg with a regularly irregular pulse rate of 50. The EKG (Figure 2) revealed normal sinus rhythm with 3:2 and 4:3 A-V Wenckebach and broad QRS complexes. The serum potassium was 7.0 mEq/L, creatinine was 2.5mg/100 ml, urea nitrogen was 32 mg/100 ml, serum digoxin was 2.2 ng/ml and the pH was 7.40.



Fig 2: An EKG and lead II rhythm strip obtained on 1/11/83 at 11:30 A.M. shows normal sinus rhythm with 3:2, 4:3 and 2:1 AV Wenckebach and widening of the QRS complexes. Serum potassium was 7.0 mEq/L. Standardization equals 1 mV in limb leads, 2 mV in chest leads.

The hyperkalemia was treated with bicarbonate, glucose and insulin and a cation-exchange resin. Within 1½ hours the EKG showed normal sinus rhythm similar to the EKG obtained six months prior to this admission (Figure 3). The patient's general condition improved, his weight stabilized, and he was discharged in normal sinus rhythm on the 22nd hospital day with decreased ascites.

Discussion

Any discussion dealing with the effects of potassium on the EKG requires some basic understanding of the effects of increased extracellular potassium on the action potential of cardiac tissues. Previously it was felt that increasing extracellular potassium lowers (makes less negative) resting transmembrane potential, decreases dV/dT of phase 0 and shortens the duration of phases two and three in all cardiac tissues. These effects are attributed to a decreased transmembrane gradient of potassium and to an increased membrane permeability to potassium. A reduction in upstroke velocity results in reduced velocity of conduction between adjacent cells. As resting transmembrane potential con-



Fig 3: An EKG obtained 1½ hours after Figure 2 shows normal sinus rhythm with 1:1 AV conduction and return of the baseline QRS complex. There are occasional premature ventricular contractions. Serum potassium was 5.2 mEq/L. Standardization equals 1mV in limb leads, 2 mV in chest leads.

tinues to decrease with high potassium levels, the cell eventually becomes depolarized and inexcitable.[3,5,6] Although these findings are consistent at very high extracellular potassium levels, recent data suggests the effect of increasing potassium on conduction velocity and excitability is not linear but rather biphasic. At moderate levels of hyperkalemia, the complex interaction between changing resting transmembrane potential, threshold potential, membrane permeability and ionic conductance properties results in an initial increase in conduction velocity and excitability.[7,9] Only at higher levels of extracellular potassium does the effect of the decreased resting transmembrane potential seem to predominate, resulting in a profound decrease in conduction velocity and excitability.

Several reports[10-16] now appear in the literature showing conversion of atrial fibrillation to normal sinus rhythm during episodes of hyperkalemia. Several theories have been proposed as to how hyperkalemia suppresses the ectopic atrial rhythm and allows the sinus node to reestablish itself as the pacemaker. One report proposed the theory that a transient acceleration of conduction at modest potassium elevation or a decrease in conduction at higher potassium levels may abolish a re-entrant circuit in the atria.[14] Two other reports[13,14] documenting no electrical activity of the atria on the surface EKG during hyperkalemia suggest complete atrial depolarization as a mechanism. It is well known that atrial muscle fibers are most sensitive to the depolarizing effect of hyperkalemia and can be rendered inexcitable while the sinus node, the internodal tracts, the atrioventricular node and ventricles continue to function.[3,17,18] As the potassium level decreases and the atria become excitable, they can be captured by the sinus node, reestablishing sinus rhythm in the atria. While this is theoretically possible, it has been shown[17] that atrial electrical activity can still be recorded using intracavitary electrodes long after disappearance of atrial electrical activity on the surface EKG. An intracavitary recording showing lack of fibrillatory activity would have given stronger support to the mechanism of complete atrial depolarization. Any of these mechanisms may be responsible for cardioversion, although hyperkalemia adequate to disrupt a re-entrant circuit yet not enough to cause total atrial inexcitability is the most likely mechanism since atrial standstill was not documented in the case presented. Phenytoin, which was given because of seizure-like activity, is generally ineffective as an antiarrhythmic for atrial arrhythmias not caused by digitalis toxicity and is rarely effective for atrial fibrillation.[19,20] The EKG obtained while the patient was hyperkalemic already showed the atria re-excitable with obvious surface P wave activity; other effects of hyperkalemia are still evident with prolonged PR interval and QRS duration and second degree AV block (Figure 2).

The effect of hyperkalemia on AV conduction is variable and results from the interplay of a number of mechanisms, such as the antivagal effect of potassium and the reduction of resting membrane potential by the cation.[16] Many experiments in animals and a few observations in man have demonstrated a dual effect on AV conduction. At plasma levels of 5.5-6.5 mEq/L, representing mild hyperkalemia, AV conduction is accelerated and at higher levels conduction is depressed.[5] Studies have shown that mild levels of hyperkalemia inhibited the depressing effects of acetylcholine and the vagus on the AV node and in the clinical setting mild hyperkalemia has been shown to improve conduction in patients with AV block or accelerate ventricular rate in patients with atrial fibrillation.[5] At higher levels of hyperkalemia, the depressing effects of potassium and vagal activity on AV conduction become synergistic while at extremely high levels, (mean level greater than 8.0 mEq/L), potassium produces AV block independent of vagal activity.[5,7,16] In this case, whatever factors (such as digitalis, hyperkalemia, increased vagal tone, or ischemia) contributed to the development of AV block; decreasing serum potassium from 7.0 to 4.2 mEq/L improved AV conduction to 1:1 with a PR interval of

0.20 seconds. There was also a dramatic improvement in intraventricular conduction, the QRS reverting to the baseline RBBB with a QRS duration of 0.16 seconds from the more bizarre QRS approximating RBBB with left anterior fascicular block with a duration of 0.18-0.20 seconds seen with the hyperkalemia. There was also narrowing of the P wave as conduction improved within the atria.

Other explanations are possible for the conversion of atrial fibrillation to normal sinus rhythm. Although not usually effective, the phenytoin may have had a significant antiarrhythmic effect. Also, the patient had a good diuresis which was due to improvement in his ascites but could have partially been due to improvement of mild congestive heart failure. However, the changes also seen in AV and intraventricular conduction suggest that transient hyperkalemia played a role and possibly was the primary cause. There were no significant changes in any other measured parameters including blood gases, other electrolytes or digoxin levels.

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Armand H. Rothschild, M.D., Assistant Professor of Medicine University of Louisville, Louisville, Kentucky; M.R. Sridharan, M.D., Assistant Professor of Medicine, Medical College of Georgia, Augusta, Georgia; B. Goudi, M.D., Assistant Professor of Medicine, University of Louisville, Louisville, Kentucky; G.S. Sohi, M.D., Professor of Medicine, University of Louisville, Louisville, Kentucky; Nancy C. Flowers, M.D., Professor of Medicine, Medical College of Georgia, Augusta, Georgia. From the Division of Cardiology, Department of Medicine, University of Louisville School of Medicine, Louisville, KY. Reprint requests: Armand H. Rothschild, M.D., Division of Cardiology, 550 South Jackson Street, Louisville, KY 40202

Pulmonary Aspiration of Gastric Contents

JOHN H. WOODRING, M.D., STANLEY R. REHM, M.D.
HAL BRODERSON, M.D. AND FANG KUM LOH, M.D.

Aspiration of gastric contents occurs predominantly in patients with altered states of consciousness and is associated with significant morbidity and mortality. Although most cases are associated with overt vomiting, many cases are associated with clinically silent regurgitation. The onset of symptoms is usually fulminant with the rapid appearance of diffuse pulmonary infiltrates occurring in 88-94% of patients. The majority of patients show progressive improvement over a period of two to 16 days after aspiration; however, some patients die as the result of superimposed bacterial pneumonia, adult respiratory distress syndrome, or pulmonary embolism. Apnea, shock, early, severe hypoxemia, and progressive radiographic and clinical deterioration are indicators of poor prognosis and high mortality rates. Therapy is largely supportive, consisting of adequate pulmonary toilet, oxygen, ventilatory support, fluid replacement, and antibiotic therapy for superimposed bacterial pneumonia. Corticosteroids, albumin, and prophylactic antibiotics have not been shown to be effective.

Since the original descriptions by Hall[1] and Mendelson,[2] pulmonary aspiration of gastric contents has been recognized as an important cause of morbidity and mortality in predisposed patients. Despite modern therapy, mortality rates are still high with an overall mortality rate between 26 and 62%[3,4,5] and mortality rates as high as 63% to 90% in selected groups of patients. Unfortunately, aspiration of gastric contents presents with a wide spectrum of clinical and radiographic manifestations and, as a result, correct diagnosis and subsequent treatment may be difficult. The purpose of this paper is to review the pathophysiology of aspiration of gastric contents, its clinical and radiographic manifestations, and to discuss current concepts in the prevention and management of gastric contents aspiration.

Pathophysiology

Patients at greatest risk to develop aspiration of gastric contents are those who are obtunded by general anesthesia, alcohol intoxication, sedative drug overdose, seizure disorders, cerebrovascular accidents, cardiopulmonary arrest, encephalopathy, head injury or coma.[3,4] Obtundation is by far the most common cause of aspiration of gastric contents[1,2,4] and has been reported in as many as 98-100% of cases in some series.[3,4] A small percentage of cases may also occur in patients who are bedridden or chronically ill, who have alimentary tract disorders, or who have depressed cough or gag reflexes. Nasogastric tubes render the upper and lower esophageal sphincters incompetent predisposing the patient to gastroesophageal reflux and aspiration.

A common misconception concerning aspiration of gastric contents is that aspiration only follows overt vomiting.[6] In a series of 60 patients Landay *et al*[4] were able to either observe overt vomiting or recover gastric contents from the airways during intubation or suctioning of an endotracheal tube in 38 patients (63%); however, 22 patients (37%) developed aspiration pneumonia following clinically silent regurgitation with no direct historical evidence that an episode of aspiration had occurred.

It is also worth noting that the presence of a cuffed endotracheal tube or tracheostomy tube does not afford absolute protection against aspiration. Pavlin *et al*[7] found that high-volume, low-pressure tracheal cuffs properly inflated did not prevent aspiration in patients who were breathing spontaneously or breathing asynchronously with a ventilator thereby creating a negative pressure distal to the cuff. Spray *et al*[8] found that by instilling Evans blue dye into the oropharynx of intubated patients that aspiration occurred in 27 of 48 patients (56%) intubated with standard low-volume, high-pressure cuffed tubes, five of 17 (29%) intubated with modified stan-

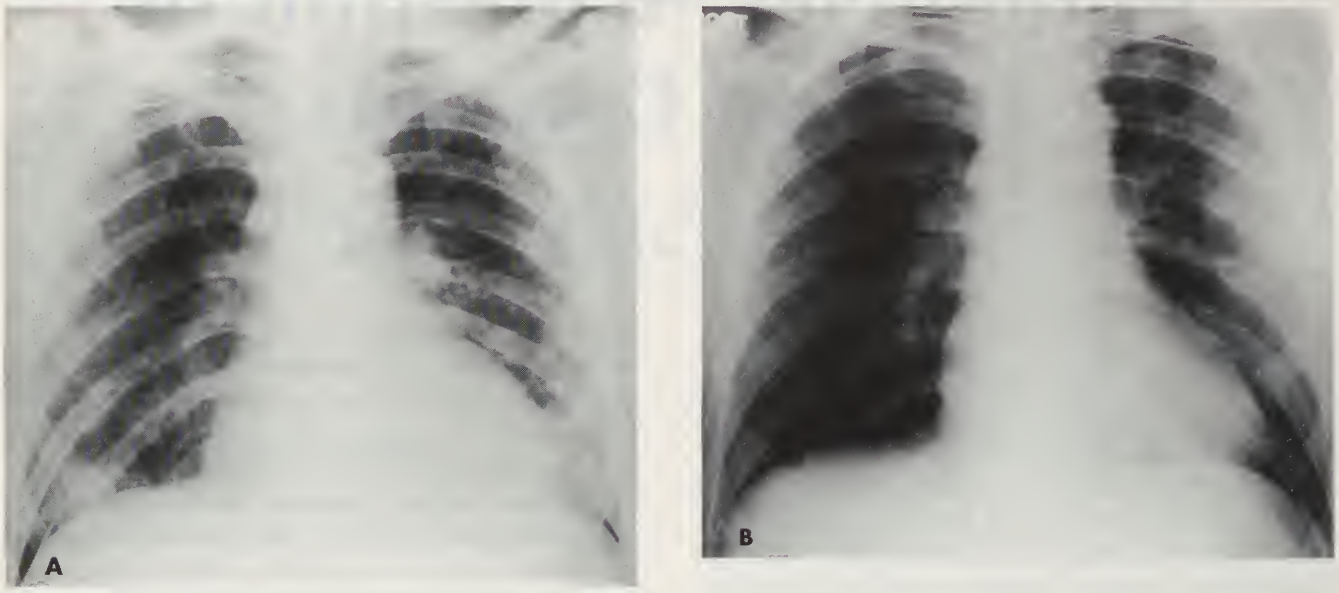


Fig. 1: A. Aspiration of gastric contents presenting acutely as alveolar infiltrates in the left mid and lower lung zone and right lower lung zone, B. Twelve days later the radiograph has returned to normal.

dard cuffed tubes, and seven of 35 patients (20%) intubated with high-volume, low-pressure cuffed tubes. Although the amount of aspiration documented was often slight, the results of these studies indicate that if regurgitation of gastric contents into the oropharynx occurs, aspiration into the lung is quite possible in intubated patients. Likewise, Cameron *et al*[9] documented aspiration around tracheostomy tubes in 42 of 61 patients (69%). The high incidence of aspiration around tracheostomy tubes appears to be related to interference with the normal glottic closure mechanism by the tracheostomy itself.[9]

Once aspiration has occurred, the pathophysiology and the clinical presentation are dependent upon the pH, volume, tonicity, and lung localization of the aspirate. A pH of 2.5 was originally suggested as a clinically important cutoff on the basis of unpublished data.[10,11] Although this value has recently been challenged,[12] it does appear that the degree of injury increases with decreasing pH.

In general, when fluid with a low pH is aspirated, the initial pulmonary injury is a chemical burn to the alveoli and conducting airways, mediated both by gastric acid and gastric enzymes, and manifested by immediate changes in epithelial permeability. According to Wynne and Modell[13] this loss of alveolar capillary membrane integrity results in the exudation of large amounts of protein-rich extracellular fluid into the lung producing interstitial and alveolar pulmonary edema, increased lung weight, and decreased pulmonary compliance. If the fluid shift is large, hypovolemia with increasing hematocrit and systemic hypotension may ensue.[14,15] Hypotension may also be generated through decreases in systemic vascular resistance, possibly mediated by non-vagal reflexes or circulating vasoactive amines.[16]

Pulmonary arteriolar microthrombus formation and hypoxic vasoconstriction may create an increase in pulmonary vascular resistance with low to normal pulmonary artery pressure.[17,18] Destabilization of surfactant and reflex closure of small airways (bronchospasm) combine with edema formation to create intrapulmonary shunting and peripheral hypoxemia. If the patient survives the initial event, an inflammatory reaction develops at the site of injury with neutrophil infiltration, hemorrhage, and epthelial necrosis.

Aspiration of isotonic fluid with a higher pH may result in similar changes of pulmonary edema and resultant hypoxemia; however, necrosis of alveolar cells and neutrophilic infiltration usually does not occur. Scanning electron microscopic studies have revealed that aspiration of gastric juice with a pH of 5.9 can induce tracheal desquamation; this injury may be attributable to the irritant effect of gastric enzymes.[19] These lesions are generally mild, so in contrast to more acidic aspiration, the acute respiratory decompensation is frequently short-lived and more easily reversed.

Other lung injuries can occur after aspiration of neutral stomach contents which contain non-obstructing food particles or hypertonic fluids such as milk. Such an

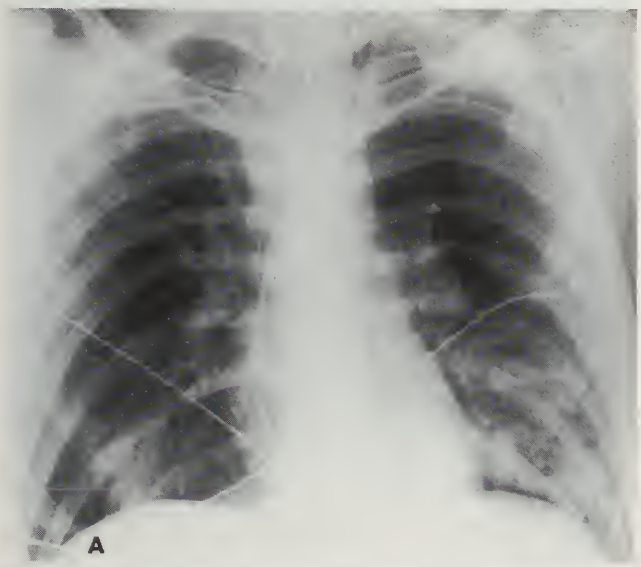




Fig. 2: A. Aspiration of gastric contents presenting acutely as alveolar infiltrates in the left mid and lower lung zone, right lower lung zone, and pneumomediastinum with subcutaneous emphysema. Fiberoptic bronchoscopy revealed thick endobronchial secretions and an obstructing food particle in the lingular bronchus subsequently removed through a rigid bronchoscope.
B. Three days later the chest radiograph shows marked clearing of the alveolar infiltrate and resolution of the pneumomediastinum and subcutaneous emphysema.

aspiration induces primarily a mononuclear and granulomatous type reaction. The frequency of this type of aspiration is unknown, and in general, most changes seem to be dose related. However, when large quantities of neutral non-obstructing food substances are aspirated, mortality rates are similar to those seen with acid aspiration.[20] The aspiration of food particles of sufficient size to produce bronchial obstruction may result in postobstructive hyperinflation, atelectasis, or pneumonia.

Clinical Features and Diagnosis

The onset of illness is usually acute and fulminant, with approximately 96% of patients becoming symptomatic within the first hour after aspiration of gastric contents; 4% of patients will have a latent period of up to two hours before the development of symptoms.[3] The majority of patients demonstrate varying degrees of fever, tachycardia, wheezing, rales, rhonchi, cough, sputum production, dyspnea, tachypnea, cyanosis, hypotension, apnea, and shock;[3,4] however, some patients are relatively asymptomatic, demonstrating only a low grade fever.[4] Pulmonary infiltrates develop acutely within the first 24 hours after aspiration in 88-94% of patients.[3,4,5] It is important to recognize that fever, pulmonary infiltration, purulent sputum production, and peripheral leukocytosis are components of the normal inflammatory response to sterile chemical injury and do not necessarily indicate superimposed bacterial infection.[13] The most significant laboratory finding is hypoxemia, with most patients demonstrating a PaO_2 in the range of 30-70 mm. Hg.

Approximately 88-94% of patients who aspirate gastric contents do develop an abnormal chest radiograph.[3,4,5] However, it must be remembered that a small percentage do not develop radiographic abnormalities, therefore, a normal chest radiograph should not rule out the diagnosis of aspiration of gastric contents.

Bilateral pulmonary infiltrates resembling pulmonary edema may be seen in one-half to two-thirds of the cases.[3,4,5] Although the appearance may be similar to acute pulmonary edema from cardiac failure, the cardiac silhouette remains normal in size and the pulmonary vessels are not congested in aspiration of gastric contents.[4] These diffuse infiltrates are often symmetrical but may be asymmetrical.[3,4] In one-third to one-half of cases the pulmonary infiltrates may be unilateral[3,4,5] and involvement of only one lobe may be seen frequently.[5] Any lobe may be involved; however, the right lower lobe is the most frequently involved and the left upper lobe is the least commonly involved lobe.[3,5] If lateral radiographs are obtained the infiltrates will be noted to involve the mid and posterior portions of the lungs in 82% of cases; in 18% of cases the anterior portions of the lung are involved.[4] The pulmonary infiltrates are of an alveolar nature in 92% of cases and are of a linear or reticular nature in 22% of cases, with



C. Seven days after the initial event of aspiration the patient developed worsening hypoxemia and increased alveolar infiltration in the left lung. Sputum cultures which had been negative grew Enterobacter cloacae.

a mixed pattern being common.[3] Atelectasis is uncommon, occurring in only 8% of patients, and suggests aspiration of particulate food matter. When atelectasis is present it is usually of the subsegmental variety; segmental and lobar atelectasis are rare.[3] Pleural effusion is rare, occurring in only 2% of cases.[3] Cavitation apparently does not occur from uncomplicated aspiration of gastric contents alone;[3,4] when cavitation does occur it is suggestive of superimposed bacterial infection.

Although the radiographic abnormalities described above are nonspecific, in the proper setting they do provide an important clue to the correct diagnosis of aspiration of gastric contents. In any patient predisposed to develop aspiration of gastric contents the appearance of any new radiographic infiltrate should suggest the possibility of aspiration.[4] The rapid development of diffuse infiltrates in previously normal lungs in a predisposed patient with a normal cardiac silhouette, normal pulmonary vascularity, with absence of pleural effusions and cavities, is strong evidence that aspiration of gastric contents has occurred.[4] The diagnosis may be confirmed by direct visualization of gastric contents in the airways at the time of intubation, retrieval of gastric contents from endotracheal suctioning, or by direct visualization of the event of aspiration in up to 63% of patients.[3,4] However, it should be remembered that in as many as 37% of cases aspiration follows clinically silent regurgitation and there will be no direct historical evidence that aspiration has occurred. Fortunately, the acute, fulminant nature of aspiration pneumonia in the proper clinical setting is usually sufficient to distinguish it from other forms of pneumonia.[3]

Once aspiration of gastric contents has occurred the clinical course usually follows one of three patterns. In the majority of patients there is progressive clearing of the pulmonary infiltrates in two to 16 days (4.5 days mean) with clearing of hypoxemia in a slightly longer period of time.[3] This uncomplicated course leading to recovery is seen in 62-68% of cases[3,4] (Figure 1) and is similar to that of laboratory animals which have received less than 2.0 ml. of acid per Kg or which have received acid with a pH greater than 2.4.[3,21,22]

In 10-26% of patients there is an initial period of clinical and radiographic improvement followed by progressive pulmonary infiltration and clinical deterioration which usually occurs after the third day following aspiration (Figure 2).[3,4] This clinical picture is associated with a high morbidity and mortality rate associated with superimposed bacterial pneumonia, adult respiratory distress syndrome, and pulmonary embolism.[4] Bynum and Pierce[3] used the following criteria for the diagnosis of bacterial pneumonia superimposed upon aspiration pneumonia: a chest radiograph demonstrating new or worsening infiltrates; a sputum or tracheal aspirate culture which demonstrates potentially pathogenic bacteria; fever of 102° F. or greater that was not present during the preceding 24 hours; and a leukocytosis of more than 10,000 cells per mm^3. When all of these criteria were met within a 48-hour period, they considered superimposed bacterial pneumonia to be likely.

The third group of patients, representing 12-20% of cases, demonstrate progressive clinical deterioration, with a stable or worsening radiographic picture, leading to death in a few days to weeks (Figure 3).[3,4] This group of patients tends to be older, their initial physical examination reveals apnea and shock, and they all demonstrate severe hypoxemia.[3] The course of these patients is similar to that of experimental animals given two or more ml. of acid (pH of 2.4 or less) per Kg. intratracheally.[3,21,22]

The overall mortality rate from aspiration of gastric contents ranges from 26 to 62%;[3,4,5] however, certain groups of patients have a much higher mortality rate.The presence of apnea, shock, and early, severe hypoxemia is a particularly ominous event associated with a 59% mortality rate.[3] Up to 63% of patients who demonstrate initial clearing followed by clinical and radiographic

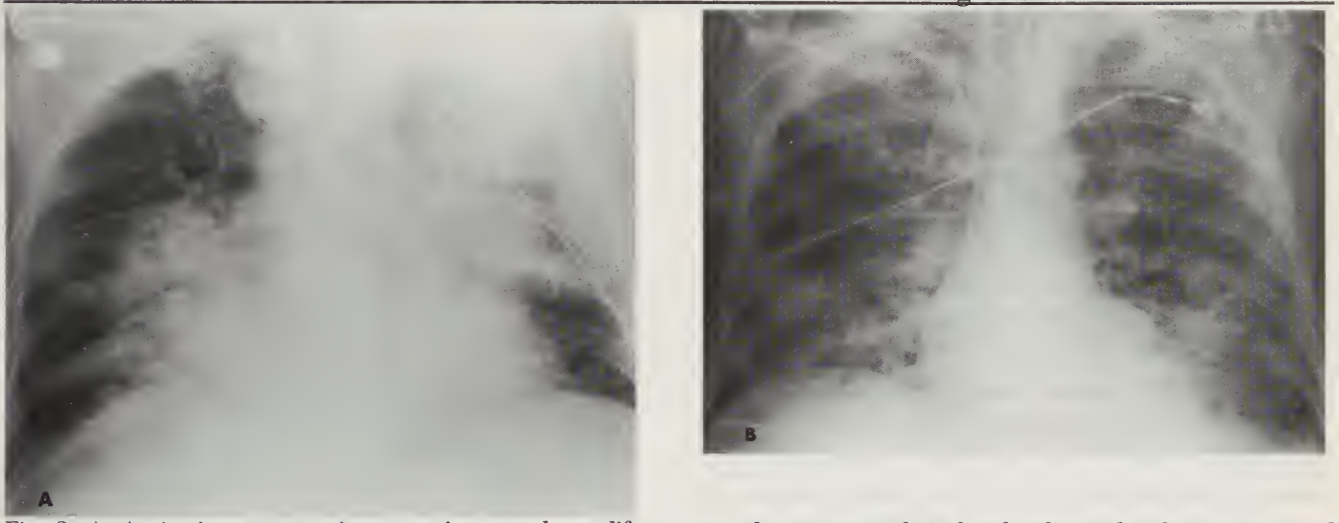


Fig. 3: A. Aspiration pneumonia presenting acutely as diffuse, bilateral alveolar infiltrates. B. This patient experienced progressive clinical and radiographic deterioration and died of ARDS after 12 days.

deterioration die from their aspiration pneumonia and its complications.[3,4] Cameron *et al*[5] showed that mortality correlated with the extent of radiographic involvement. In their series of 47 patients mortality was 41% if only one lobe was involved but rose to 90% if two or more lobes were involved. Age of the patient also plays a role in mortality rates, with elderly patients demonstrating much higher mortality rates than younger patients.[3]

Management

The ideal treatment would seem to be prevention of acid aspiration; however, preventative measures have not been reliably shown to be effective. Antacid therapy for subjects at risk for aspiration has been widely recommended, but it should be understood that this intervention does not always eliminate the risk of significant pulmonary injury if aspiration occurs. Whittington *et al*[23] reported that two obstetric patients treated with antacids died within nine hours after aspirating gastric contents during induction of anesthesia; autopsies revealed acute pulmonary edema and chemical pneumonitis. The authors note that despite widespread use of antacids for patients in labor, there has been no apparent reduction in fatal aspiration (Mendelson's) syndrome in Great Britain; for the years 1973-75, 13 such deaths were recorded, all in patients receiving antacids, compared to 14 such deaths in 1970-72, of whom only three received antacids. It has been suggested that the failure of antacids to prevent Mendelson's syndrome may result from incomplete mixing of the antacids with gastric secretions.[24] In patients with impaired gastric motility, antacids also offer the distinct disadvantage of exacerbating gastric distention, and there is evidence that preservatives, stabilizers, and oils added to improve palatability in antacids may induce inflammation in the lungs.[23]

Toung and Cameron,[25] in a study of the comparative abilities of two anticholinergic drugs (atropine and glycopyrrolate) and a histamine H_2 receptor antagonist (cimetidine) to raise gastric pH above 2.5 and decrease gastric secretions, found that cimetidine was much more effective than the anticholinergic drugs in raising gastric pH and drying the stomach. They found that three preoperative doses of cimetidine (300 mg. orally 14 hours and then eight hours prior to induction of anesthesia followed by 300 mg. intravenously 60 to 90 minutes prior to induction of anesthesia) raised gastric pH above 2.5 in 93% of patients and completely dried the stomach in 54% of patients, virtually eliminating the risk of gastric acid aspiration in patients under general anesthesia. These observations have been recently confirmed in a randomized, double-blind study comparing cimetidine with conventional antacids;[26] the authors note, however, that cimetidine does not neutralize acid already in the stomach, and recommend supplementing cimetidine with a nonparticulate antacid prior to emergency surgery. However, when given together antacids may inhibit the absorption of cimetidine, thereby diminishing the effectiveness of the intended therapy.[27] Theoretically, cimetidine may increase the risk of bacterial pneumonia after aspiration since neutralization of gastric pH may facilitate the growth of microorganisms in the stomach; such an association remains conjectural, however.

If aspiration is observed, endotracheal suctioning should be performed immediately. This stimulates coughing, removes some of the aspirated material, and may aid in confirming the diagnosis. Fiberoptic bronchoscopy may show subsegmental erythema, a finding which substantiates acid aspiration[28] and may aid in the removal of small food particles; however, the fiberoptic bronchoscope is generally unsuitable for the removal of large particulate material. If removal of large particulate matter is necessary, rigid bronchoscopy is preferable. If the patient's cough reflex is intact the instillation of small amounts of sterile saline (5 to 10 ml.) into the trachea may stimulate coughing and help to keep the respiratory tree clean. Endobronchial lavage with alkaline bicarbonate solutions is not justifiable since all acid entering the bronchial tree is rapidly neutralized. This impressive buffering capacity of the lung was clearly shown in a study in which hydrochloric acid (pH of 1) mixed with an indicator dye was instilled into rabbit lungs at a dose of 2 ml./Kg; within five seconds, all large conducting airways had returned to a pH of 5, and alveolar neutralization was complete within 30 seconds.[29] Bannister *et al*[30] have shown that the introduction of large volumes of alkaline solutions into the tracheobronchial tree only serves to push the gastric contents further peripherally; therefore aggravating, rather than alleviating, the situation.

Steroid therapy in patients who aspirate gastric contents remains controversial. Experimental data exists supporting and refuting steroid use. The experimental evidence showing beneficial effects[30,31,32] have significant drawbacks in design, sample size, or method of result quantification. While this is also true for some of the data showing no benefit from steroids, the best and most recent evidence[3,5,33,34,35] suggests that there is little, if any, benefit from pre or post treatment of these patients with steroids; in most instances the survival rates are similar between groups of patients who did and did not receive steroid therapy. Interestingly, Wolfe *et al*[35] who demonstrated no increase in survival after aspiration in a group of steroid-treated patients, noted that seven of 20 subjects (35%) so treated developed gram-negative pneumonia compared to zero of 13 subjects in whom steroid therapy was withheld. Therefore, it appears that steroid therapy may increase the morbidity of aspiration of gastric contents without any significant decrease in mortality rates.

Similar controversy exists over the use of albumin. Theoretically, if the molecular size of the osmotic agent was larger than the pore size of the damaged alveolar capillary membrane, extravasation of fluid would be decreased due to increased intravascular osmotic pressure. However, if the pore size of the damaged membrane was larger than the osmotic agent, albumin could leak out into the extravascular space and cause increased accumulation of edema fluid in the lungs. Both benefit and detriment have been described from the use of albumin in experimental animal studies.[36,37,38] Controlled studies on humans have not been performed, but some investigators[36] advocate cautious administration of 12.5 to 25 grams in albumin every four to six hours in patients who have aspirated gastric contents. However, there is no clear cut evidence that this improves survival in human subjects.

The acid content of the normal stomach presents a formidable barrier to bacterial survival. At a pH below 3.0, gastric contents normally harbor 10^3 organisms per ml., equally divided between aerobes and anaerobes; with hypochlorhydria (pH greater than 6.0) the concentration rises to 10^7 bacteria per ml. with a trend toward increased numbers of coliform organisms.[39] In the more common clinical situation of iatrogenic achlorhydria induced by cimetidine or antacids, similar high gastric bacterial counts should be expected.[40] The pH of aspirated gastric contents may thus be important not only as a determinant of the degree of chemical injury but also as a risk factor for subsequent pneumonia. Bacterial pneumonia frequently complicates aspiration of gastric contents but tends to develop as a secondary phenomenon rather than as a primary event. Numerous clinical studies of prophylactic antibiotics as a therapeutic modality in these patients have demonstrated an absence of a beneficial effect[5] and an increased risk for infection with antibiotic-resistant organisms.[41,42] It therefore seems prudent to reserve antibiotics for those patients who develop fever, leukocytosis, new pulmonary infiltrates, and a suggestive sputum culture 72 hours or more after the occurrence of aspiration. When aspiration is documented in an achlorhydric patient the indications for antibiotic coverage may be liberalized, and in all cases initial antibiotic coverage should include anaerobes and gram-negative aerobes until appropriate culture results are available.

In patients who are diagnosed as having aspirated gastric contents, institution of supplemental oxygen is justified in the presence of hypoxemia; strong consideration should be given to the insertion of an arterial line since multiple blood gas determinations may be

anticipated. Face mask oxygen may provide transient alleviation of hypoxemia, but the development of atelectasis and a decrease in pulmonary compliance should be expected and if respiratory distress and dyspnea persist, there should be no hesitation to proceed with intubation and mechanical ventilation. Intubation may be somewhat helpful in also preventing further episodes of aspiration and enables mechanical ventilation when the patient develops respiratory insufficiency manifested by hypoxemia and retention of CO_2. The institution of positive pressure ventilation improves arterial oxygenation, decreases intrapulmonary shunting,[15] and improves survival rates.[18] The use of positive end-expiratory pressure (PEEP) allows for maintenance of arterial oxygenation while lowering the inspired oxygen concentration, thereby lessening the risk of oxygen toxicity. Because PEEP can depress cardiac output and elevate pulmonary artery pressure it is advisable to use the minimum amount of PEEP necessary to maintain adequate oxygenation.[43]

Since aspiration pneumonia causes large fluid shifts resulting in large volumes of extracellular fluid loss, hypovolemia may occur.[14,15] Therefore, supportive therapy should include careful monitoring of serum electrolytes and appropriate fluid replacement.

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Editors' Note

It should be noted that nasogastric suction is a major factor in preventing aspiration in the obtunded patient.

From the Department of Diagnostic Radiology A.B. Chandler Medical Center (1) University of Kentucky 800 Rose Street Lexington, Kentucky 40536-0084 and the Pulmonary section, Department of Medicine, Lexington VA Medical Center (2) Cooper Drive Division Lexington, Kentucky 40507

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Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

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Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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Keeping Pace With Tomorrow

To serve as your President for the coming year is an honor. I have been encouraged and inspired by the people who have held this position before me. As an auxiliary we have demonstrated that we care by recommending prescriptions for a healthier living and declaring service as the sunshine of our lives. We have challenged the changing times, celebrated health, and done it all in harmony.

We have been a successful auxiliary, growing in wisdom and in stature, contributing to our component and national auxiliary. This is gratifying, but it is no way the finished product. It only serves to remind us there is much to be done to promote the principles for which our auxiliary was founded. We cannot be content to rest upon our accomplishments, but must seek new approaches and new roads or service.

With the rapid change in medicine today, we are constantly being required to make the necessary adjustments to meet the needs in our communities and organizations affected by these changes.

Oliver Wendel Holmes said, "I find the great thing in this world is not so much where we stand, as in what direction we are moving."

Our theme this Auxiliary year will be "Keeping Pace With Tomorrow." The Americn Medical Association Auxiliary will be our resource and provider in leadership training, education seminars, and many programs, assisting us at the county and state level so we will be prepared for tomorrow.

In order to keep pace with tomorrow, we shall continue to support our medical schools through the American Medical Association Education and Research Foundation. Through your consistent generosity, we have been able to ensure all qualifying students access to the field of medicine. Currently AMA-ERF has several different funds which can be earmarked by the donor. The Medical School Excellence Fund provides grants to medical schools to use as they wish. The Medical Students Assistance Fund provides funds to medical schools for student financial aid. This fund was begun in 1983 to provide dollars for direct financial assistance to students. The Unrestricted Fund is used at the discretion of the Board of Directors to support pilot and experimental health and medical programs.

The objective of the Auxiliary's health projects for the coming year will be geared toward promoting the positive aspects of aging, adolescent pregnancy, education in prenatal and postnatal care, and programs on the proper use of the infant/child auto safety seats. We will continue with the national Shape Up for Life campaign by emphasizing the need for healthier lifestyles through good nutrition, regular exercise, cessation of smoking and abuse of alcohol. Lifestyles changes could also reduce health care cost. A great majority of money spent on health care is for self-induced diseases that are largely preventable.

Keeping pace with health legislation is imperative. It's an imposing responsibility of the American Medical Association, the Kentucky Medical Association, and their auxiliaries. Educating members on legislative issues concerning medicine and health care and motivating them to act on those issues is so very important.

Perhaps you do not wish to be a lawmaker...but you daily shape legislation, either through your voice or through your silence. Only our best effort in legislative action will ensure the public that everyone will continue to receive high quality medical care and freedom of their choice for a physician. We have the potential and the means to accomplish great things through legislative action—for ourselves and our communities.

We must travel the medical road together. This can only be achieved by seeking out the career-oriented, widows, medical student/resident physicians spouses, and our vast resource of members-at-large. In seeking out these members we must be prepared to have something to offer. Today there are too many organizations and careers vying for the time of each volunteer. People must be selective as to how and where they will spend their time and energy. Your Auxiliary is prepared to offer that something this year. The membership committee will offer seminars on "Coping with a Malpractice Suit." This will be an important educational opportunity for all our members and prospective members, and from the seminars we hope to form a support group to meet the needs of our members.

We are about to begin another year. The well worn roads of the past give guidance, but those roads must be paved with greater expansion and broader avenues of service in our communities. By investing our talents, time, and energies we can achieve the goals of our auxiliaries. I urge you to find the need in your community that you can best fulfill. There is no doubt that we are endowed with members of talent and dedicated purpose. We need only to tap these resources to produce a powerful influence in this sometimes hectic and faltering age in which we live.

Each year we are making our mark in time. With the help of all we can achieve another year of distinction for an even better tomorrow.

Jo-Ann Daus
AKMA President

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Cephradine for Oral Suspension USP

DESCRIPTION: Velosef '250' Capsules and Velosef '500' Capsules (Cephradine Capsules USP) provide 250 mg and 500 mg cephradine, respectively, per capsule. Velosef '125' for Oral Suspension and Velosef '250' for Oral Suspension (Cephradine for Oral Suspension USP) after constitution provide 125 and 250 mg cephradine, respectively, per 5 ml teaspoonful.

INDICATIONS AND USAGE: These preparations are indicated for the treatment of infections caused by susceptible strains of designated microorganisms as follows: Respiratory Tract Infections (e.g., tonsillitis, pharyngitis, and lobar pneumonia) due to *S. pneumoniae* (formerly *D. pneumoniae*) and group A beta-hemolytic streptococci [penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever; Velosef (Cephradine, Squibb) is generally effective in the eradication of streptococci from the nasopharynx; substantial data establishing the efficacy of Velosef in the subsequent prevention of rheumatic fever are not available at present]; Otitis Media due to group A beta-hemolytic streptococci, *H. influenzae,* staphylococci, and *S. pneumoniae*; Skin and Skin Structures Infections due to staphylococci and beta-hemolytic streptococci; Urinary Tract Infections, including prostatitis, due to *E. coli, P. mirabilis, Klebsiella* species, and enterococci (*S. faecalis*).

Note: Culture and susceptibility tests should be initiated prior to and during therapy.

CONTRAINDICATIONS: In patients with known hypersensitivity to the cephalosporin group of antibiotics.

WARNINGS: *Use cephalosporin derivatives with great caution in penicillin-sensitive patients since there is clinical and laboratory evidence of partial cross-allergenicity of the two groups of antibiotics; there are instances of reactions to both drug classes (including anaphylaxis after parenteral use).* In persons who have demonstrated some form of allergy, particularly to drugs, use antibiotics, including cephradine, cautiously and only when absolutely necessary.

Pseudomembranous colitis has been reported with the use of cephalosporins (and other broad spectrum antibiotics); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic use. Treatment with broad spectrum antibiotics alters normal flora of the colon and may permit overgrowth of clostridia. Studies indicate a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis. Cholestyramine and colestipol resins have been shown to bind the toxin *in vitro*. Mild cases of colitis may respond to drug discontinuance alone. Manage moderate to severe cases with fluid, electrolyte and protein supplementation as indicated. Oral vancomycin is the treatment of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile* when the colitis is severe or is not relieved by drug discontinuance; consider other causes of colitis.

PRECAUTIONS: General: Follow patients carefully to detect any side effects or unusual manifestations of drug idiosyncrasy. If a hypersensitivity reaction occurs, discontinue the drug and treat the patient with the usual agents, e.g., pressor amines, antihistamines, or corticosteroids. Administer cephradine with caution in the presence of markedly impaired renal function. In patients with known or suspected renal impairment, make careful clinical observation and appropriate laboratory studies prior to and during therapy as cephradine accumulates in the serum and tissues. See package insert for information on treatment of patients with impaired renal function. Prescribe cephradine with caution in individuals with a history of gastrointestinal disease, particularly colitis. Prolonged use of antibiotics may promote the overgrowth of nonsusceptible organisms. Take appropriate measures should superinfection occur during therapy. Indicated surgical procedures should be performed in conjunction with antibiotic therapy.

Information for Patients: Caution diabetic patients that false results may occur with urine glucose tests (see PRECAUTIONS, Drug/Laboratory Test Interactions). Advise the patient to comply with the full course of therapy even if he begins to feel better and to take a missed dose as soon as possible. Tell the patient he may take this medication with food or milk since G.I. upset may be a factor in compliance with the dosage regimen. The patient should report current use of any medicines and should be cautioned not to take other medications unless the physician knows and approves of their use (see PRECAUTIONS, Drug Interactions).

Laboratory Tests: In patients with known or suspected renal impairment, it is advisable to monitor renal function.

Drug Interactions: When administered concurrently, the following drugs may interact with cephalosporins:

Other antibacterial agents — Bacteriostats may interfere with the bactericidal action of cephalosporins in acute infection; other agents, e.g., aminoglycosides, colistin, polymyxins, vancomycin, may increase the possibility of nephrotoxicity.

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BID

Diuretics (potent "loop diuretics," e.g., furosemide and ethacrynic acid) — Enhanced possibility for renal toxicity.

Probenecid — Increased and prolonged blood levels of cephalosporins, resulting in increased risk of nephrotoxicity.

Drug/Laboratory Test Interactions: After treatment with cephradine, a false-positive reaction for glucose in the urine may occur with Benedict's solution, Fehling's solution, or with Clinitest® tablets, but not with enzyme-based tests such as Clinistix® and Tes-Tape®. False-positive Coombs test results may occur in newborns whose mothers received a cephalosporin prior to delivery. Cephalosporins have been reported to cause false-positive reactions in tests for urinary proteins which use sulfosalicylic acid, false elevations of urinary 17-ketosteroid values, and prolonged prothrombin times.

Carcinogenesis, Mutagenesis: Long-term studies in animals have not been performed to evaluate carcinogenic potential or mutagenesis.

Pregnancy Category B: Reproduction studies have been performed in mice and rats at doses up to 4 times the maximum indicated human dose and have revealed no evidence of impaired fertility or harm to the fetus due to cephradine. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

Nursing Mothers: Since cephradine is excreted in breast milk during lactation, exercise caution when administering cephradine to a nursing woman.

Pediatric Use: Adequate information is unavailable on the efficacy of b.i.d. regimens in children under nine months of age.

ADVERSE REACTIONS: Untoward reactions are limited essentially to G.I. disturbances and, on occasion, to hypersensitivity phenomena. The latter are more likely to occur in persons who have previously demonstrated hypersensitivity and those with a history of allergy, asthma, hay fever, or urticaria.

The following adverse reactions have been reported following use of cephradine: G.I. — Symptoms of pseudomembranous colitis can appear during antibiotic therapy; nausea and vomiting have been reported rarely. Skin and Hypersensitivity Reactions — mild urticaria or skin rash, pruritus, joint pains. Hematologic — mild transient eosinophilia, leukopenia and neutropenia. Liver — transient mild rise of SGOT, SGPT, and total bilirubin with no evidence of hepatocellular damage. Renal — transitory rises in BUN have been observed in some patients treated with cephalosporins; their frequency increases in patients over 50 years old. In adults for whom serum creatinine determinations were performed, the rise in BUN was not accompanied by a rise in serum creatinine. Others — dizziness, tightness in the chest, and candidal vaginitis.

DOSAGE: Adults — For respiratory tract infections (other than lobar pneumonia) and skin and skin structure infections: 250 mg q. 6 h or 500 mg q. 12 h. For lobar pneumonia: 500 mg q. 6 h or 1 g q. 12 h. For uncomplicated urinary tract infections: 500 mg q. 12 h; for more serious UTI, including prostatitis, 500 mg q. 6 h or 1 g q. 12 h. Severe or chronic infections may require larger doses (up to 1 g q. 6 h). For dosage recommendations in patients with impaired renal function, consult package insert.

Children over 9 months of age — 25 to 50 mg/kg/day in equally divided doses q. 6 or 12 h. For otitis media due to *H. influenzae*: 75 to 100 mg/kg/day in equally divided doses q. 6 or 12 h but not to exceed 4 g/day. Dosage for children should not exceed dosage recommended for adults. There are no adequate data available on efficacy of b.i.d. regimens in children under 9 months of age.

For full prescribing information, consult package insert.

HOW SUPPLIED: 250 mg and 500 mg capsules in bottles of 24 and 100 and Unimatic® unit-dose packs of 100. 125 mg and 250 mg for oral suspension in bottles of 100 ml and 200 ml.

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Adversary or Ally?

Illness is an adversary. Physicians may be fascinated by it, they may focus their lives on it, they may make a living from it. Its conquest can become something akin to an obsession or a love, but illness for the physician is always an adversary.

A mark of integrity among genuine healers is that, faced with a disease in their area of competence, they honestly go about trying to set things right. They do not see illness as an ally. Even though the physician may need the patient and need the income resulting from care of the patient, the focus is still on the pathology. There is a feeling that healing is good; it means something to humanity, to God, to the order of things. The healer takes satisfaction in successful conflict with disease and would take this satisfaction even if there were no profit in it at all, a truth which the Government appears to have discovered.

It is expecting a lot for those without a healing tradition—administrators, accountants, people steeped in the concepts of profit and loss, those who see and hear and touch no sufferers, to understand that illness is an adversary. It is unrealistic, for example, to expect them to take joy in a great improvement in the public's health. To whom would all those "services be delivered?" To these, illness must be seen as an ally. They intend to increase their influence.

Likewise, those sub-professionals who seek to assume a physician's identity in the public eye by the jaunty wearing of a stethoscope or the prescribing of vitamins, or the putting of drops into the eyes, can scarcely be reassured by a genuine decrease in the need for their services. To these too, illness is an ally. They propose to extend their role.

For the best of reasons healers fear the little people of big business, big insurance and big Government. We should be more sympathetic to them as well, because if all we physicians had to deal with were statistics and balance sheets we wouldn't understand either; we would have an entirely different attitude toward illness.

But while it is not clearly enunciated, it now seems that some newcomers to the care of the sick are, without subtlety, enthusiastic about illness. The attitude of many, even some who are physicians now, seems to be that cases of illness are a great blessing, a windfall, a source of riches, a prize, a quarry to be hunted and snared. The human in which the illness occurs is simply a vehicle who may be viewed with fine objectivity if, of course, there is adequate Coverage. "Coverage"—a very important word, is crucial.

Physicians, even well-trained ones with the best of traditional medicine behind them, are not immune to avarice in their approach to illness. Some charge too much and do too little or do too much or too soon. The great majority see illness as adversary, as a challenge to be attacked with zest and enthusiasm, with study and energy, and often with a confidence born of long practice. Still, to the healer, the illness is always and forever an adversary, never welcomed, never an ally.

In these times of competition there is a great risk that all those empty beds, all those underutilized technicians will create a milieu more attuned to money than to suffering. If decisions affecting this are to be made by people whose primary instincts have to do with merchandising, then it follows that the loud and the gaudy, or the sophisticated appeal, the masters of the full-page ad and the bright and tasteful splash of color on slick paper, will prevail. The sufferer will be their prey. Illness their ally. And legislators and policymakers should know that the public's health and the public's purse will suffer in the hands of those who see illness as ally instead of adversary.

David L. Stewart, M.D.

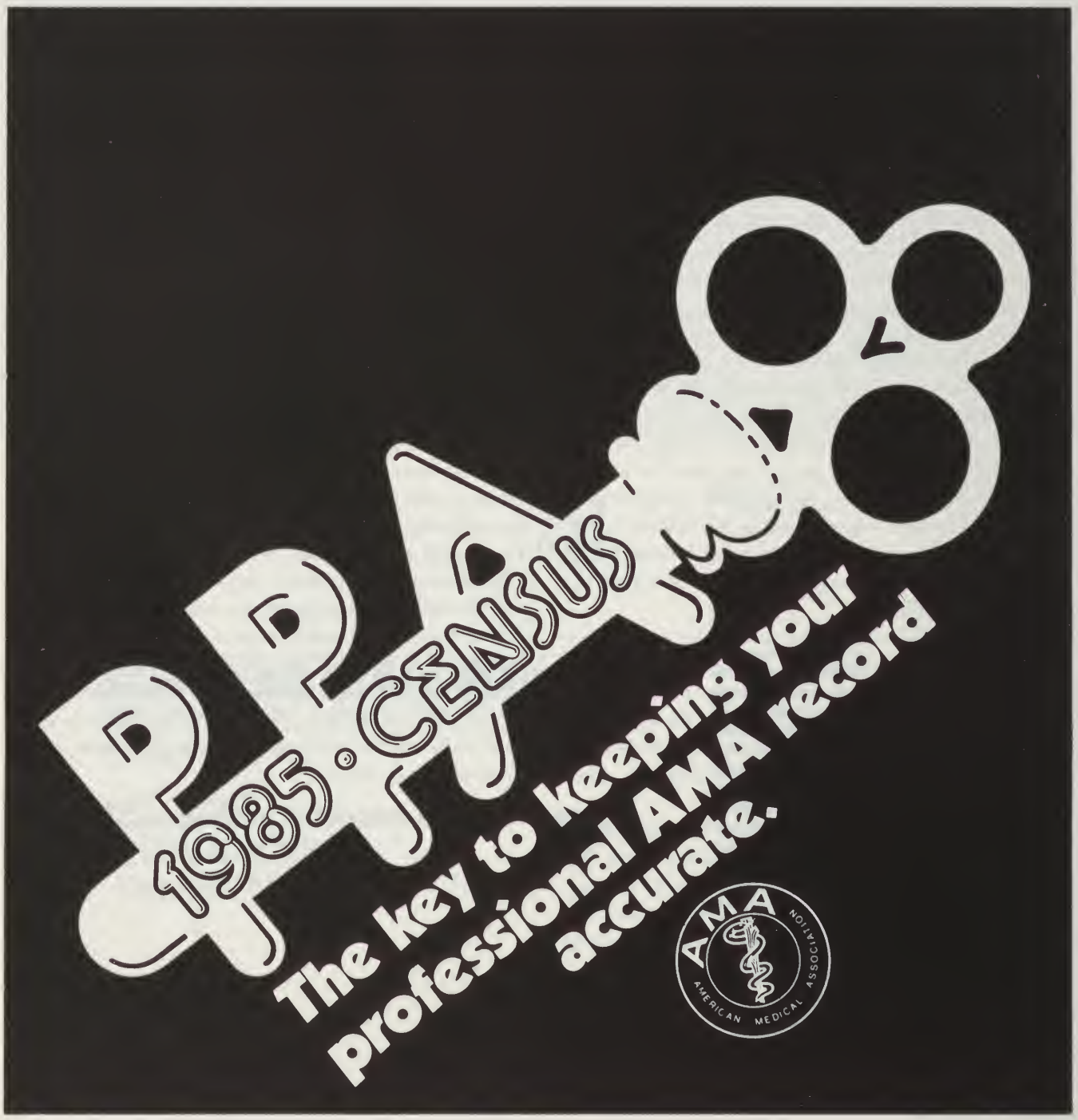
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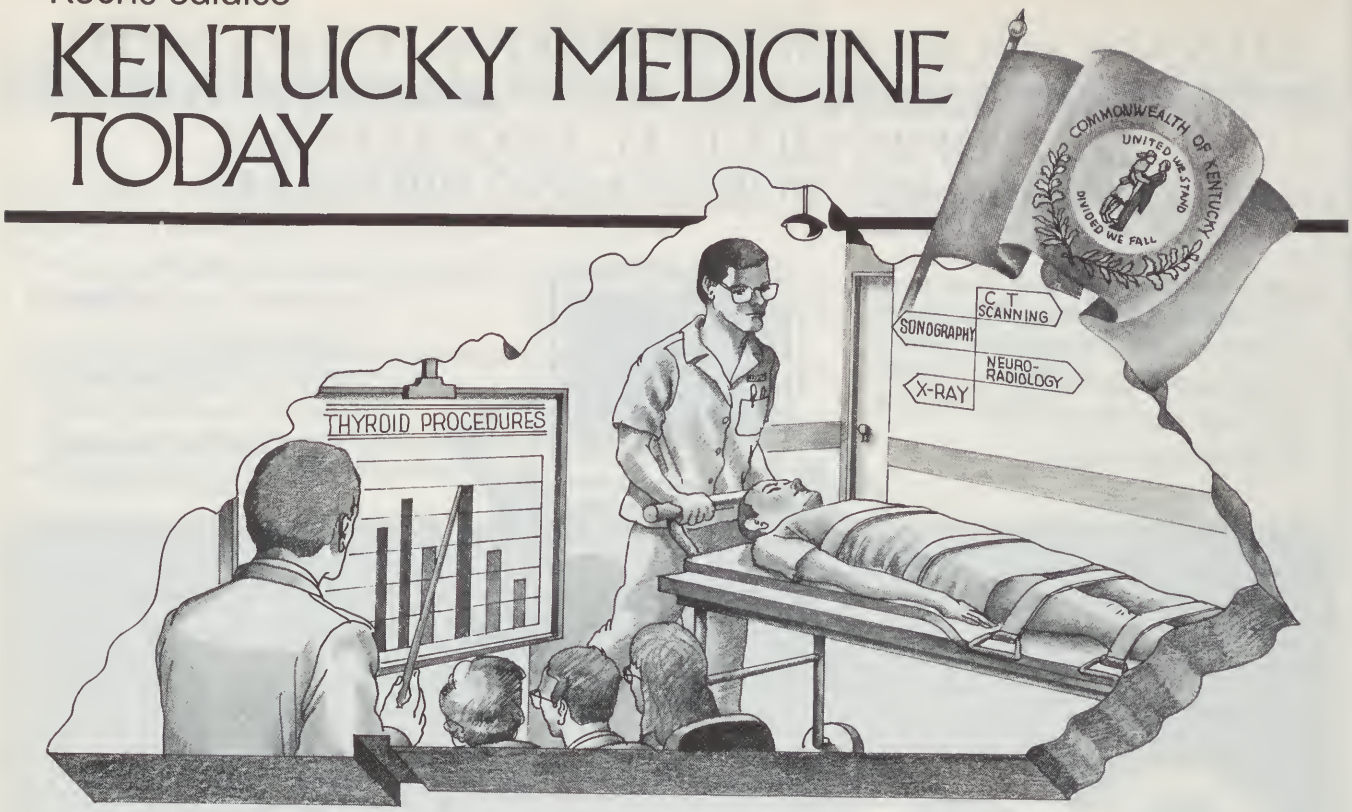
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KENTUCKY MEDICINE TODAY



Thyroid surgery subject of study covering 24 years

In a dedicated effort to assess early and late complications after thyroid operations, members of the Department of Surgery, University of Louisville School of Medicine, recently analyzed records of 407 operative procedures going back to 1958. Overall, their findings were reassuringly positive. A mortality rate of 0.7% was found and attributed to coexisting disease, advanced patient age and delayed treatment. Permanent hypoparathyroidism, probably related to disrupted blood supply, appeared in only 0.9% of cases.[1] This and other statistically significant data indicate that operative procedures on the thyroid carry an acceptably low morbidity and mortality—findings that are a Kentucky contribution to medical science.

See-through stretcher eliminates dangerous transfers

A complete radiographic evaluation of a spinal fracture usually necessitates numerous transfers of the patient between the stretcher and various x-ray and computed tomography tables. Doctors at Audubon Hospital in Louisville reasoned that these potentially dangerous transfers could be eliminated if they had a radiolucent stretcher. So they set to work and developed exactly what was needed: a stretcher strong enough so that the patient's spine is well supported and radiolucent enough so as not to degrade radiographic images. The patient can remain in the same position during the entire radiographic examination of a spinal fracture, including plain x-rays and computed tomographic and myelographic studies.[2] Further, the team designed a traction-device attachment making it possible to apply traction during myelographic examination or to accomplish a closed reduction of a cervical fracture. By obviating the need for accessory traction devices, they have produced a self-contained unit for such procedures.

The strength and radiolucency of the stretcher are assured by its construction with newly developed organic materials—a rigid core of polyimide foam and a carbon fiber-epoxy resin (or graphite-epoxy) material for the outer skins of the board. Four nylon straps with plastic buckles are used to secure the patient to the stretcher across the shins, thighs, hips and torso. Plastic handles attached to these straps on each side are used to lift the stretcher. Eight polyurethane stops on the undersurface hug the edge of the CT cradle to prevent lateral and vertical movement during scanning.

This ingenious self-contained unit makes things easier for all at Audubon, including orderlies, nurses, physicians and, especially, the patients, who now are taken off the stretcher only once—when they are placed on an operating table, a bed or a fracture frame.

References: 1. Max MH, Scherm M, Bland KI: *South Med J 76*:977-980, Aug 1983. **2.** Jelsma RK, *et al*: *Surg Neurol 22*:167-172, Aug 1984.

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TODAY: FOR THE PATIENT WITH MIXED DEPRESSION AND ANXIETY

A rational approach, combining
- The standard antidepressant: amitriptyline
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Convenient single *h.s.* dosing sufficient in some patients; helps patients with mixed depression and anxiety sleep through the night. Patients should be cautioned about the combined effects of Limbitrol with alcohol and other CNS depressants, and about activities requiring complete mental alertness such as operating machinery or driving a car.

In moderate depression and anxiety

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Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) Ⓘⓥ

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*Feighner JP, *et al: Psychopharmacology 61*:217-225, Mar 22, 1979.

Please see summary of product information on following page.

LIMBITROL® Ⓝ Tranquilizer-Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impatence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.
Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: *Double strength (DS) Tablets*, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and *Tablets*, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.

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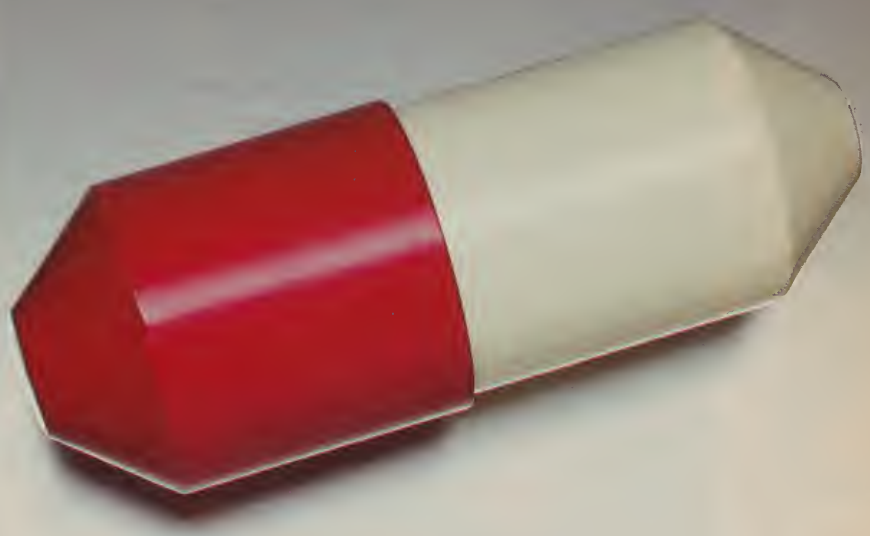
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Before prescribing, see complete prescribing information in SK&F CO. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: **Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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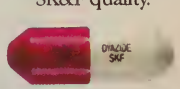
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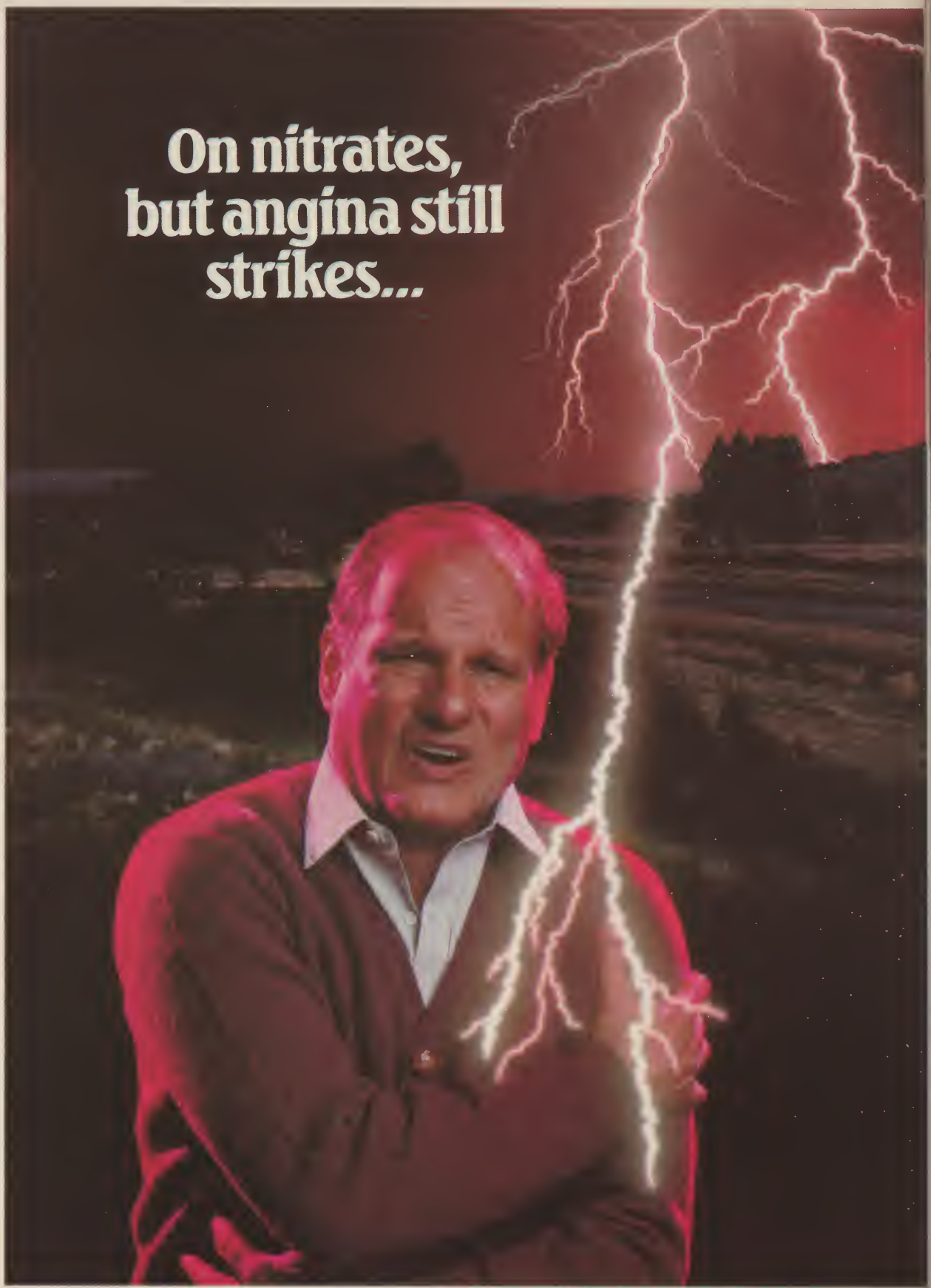


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Please see brief summary on following page.

ISOPTIN®
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Contraindications: Severe left ventricular dysfunction (see *Warnings),* hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.)* Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions.*) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C:* There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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SPECIAL ARTICLE

Evaluation of the Driver Limitation Program in Kentucky 1964 - 1984

ARTHUR H. KEENEY, M.D., D.SC., GUR C. SINGH, M.D., PH.D.
SUSAN BERBERICH, M.D. AND JOHN GIESEL

The Driver Limitation Program was begun in Kentucky in 1964 to establish control over motor vehicle operation by persons who may suffer from physical, mental, or emotional impairment. A report on the first two years analyzed 991 drivers referred for medical review; 50% of these demonstrated medical or performance impairments felt to justify their inclusion in the program. To October '83, 11,300 drivers have been brought into the program. This study analyzes 251 individuals from a systematic random sample of 400 cases. In the first two years most drivers entered the program because of three or more crashes within 24 months. The majority of drivers are entered now by action of a Commonwealth official. Records of Kentucky drivers are now expunged five years after any citation or violation. Thus, present data are too limited in duration to assess long-range objectives. There is need to maintain driving records over 10 to 15 years and to reinstitute the criterion of three or more crashes in 24 months. Physicians of the Board serve voluntarily and act on clinical judgement rather than epidemiologic data. Operation of the Board yields a significant proportion of drivers who are dangerous or potentially dangerous. Eleven percent of referred drivers have demonstrated medical limitations that could interfere with driving ability. The program appears to reach an appropriate population, but because crashes are a multiple factorial problem, it is difficult to isolate specific diseases in terms of crash causation. The physicians of Kentucky have rendered a valuable and considerate service to the drivers on our roads.

Background

In response to the need for knowledge and means to exercise some control over the privilege of operating a motor vehicle by persons who suffer from physical, mental, or emotional impairment the Driver Limitation Program for Kentucky - DLP - was designed.[1,2] It was implemented in May, 1964 and over the space of 20 years has reviewed 11,300 drivers of record. The first two years of its experience have been summarized in a booklet, The First Two Years.[2] Quoting from it:

> "The purpose of the Driver Limitation Program is to provide the driver licensing administrator with sound advice concerning the licensing of special risk drivers. This group includes those with physical handicaps, mental problems, chronic conditions, and those suffering from lapses of consciousness or control."

Authority for the program derives from Kentucky Revised Statutes[1,2] charging the Department of Public Safety to prescribe regulations for the enforcement of the driver licensing laws. The department may deny license to any person, with or without a hearing, and with or without a record of conviction, whenever the department has reason to believe:

1. that person has, by reckless or unlawful operation of a motor vehicle, caused or contributed to an accident resulting in death or injury or serious property damage;

2. that person is afflicted with mental or physical infirmities, rendering it unsafe for him to drive upon the highways;

3. that person is an habitually reckless or negligent driver of a motor vehicle, or has committed a serious violation of motor vehicle laws."

To assist the department in determining the presence or absence of mental or physical infirmities a medical examination may be required:[2]

"1. Whenever the Department of Public Safety has reason to believe that a person is afflicted with physical or mental infirmities rendering it unsafe for such person to drive upon the highways, the department shall refuse to issue an operator's license or shall suspend the existing driving privilege of such person, unless the said driver shall submit to an examination by a qualified physician within 45 days of notification.

2. Such medical examination may be conducted by a physician selected by the person to be examined, or by the County Health Officer.

3. Upon completion of the examination, the examining physician shall report his findings to the Kentucky Department of Public Safety."

A Medical Review Board was created to review the findings of the examining physician. It was initially composed of the Commissioners of Health, Public Safety or their representatives and a minimum of three Kentucky licensed physicians, nominated by the Kentucky Medical Association.

"1. The board shall review the findings of the examining physician to evaluate the driver's capability and report their findings and opinions to the Department of Public Safety, which shall take the appropriate action.

2. The physician on the board shall be appointed for a period of one year by the Commissioner of Public Safety with the advice of the Commissioner of Health."

Administratively, the criteria for requiring medical examination were:

"1. Drivers who have been involved in three or more reportable automobile accidents within a period of 24 months.

2. Drivers who at the time of collision indicate that they "blacked out" or lost consciousness prior to the collision.

3. Drivers who are named in at least two affidavits by other citizens as being incapable of properly operating a motor vehicle due to physical or mental infirmities.

TABLE 1

107 DLP drivers according to medical impairment that could interfere with driving ability. Source: The First Two Years.[2]

Impairment	No. of drivers	Percent of those referred (991) to the Medical Review Board
Epileptics	15	1.5
Diabetics	16	1.6
Heart Disease	14	1.4
Chronic Alcoholics	20	2.0
Mental Incompetents	27	2.7
History of lapse from consciousness on unknown etiology	15	1.5
Total	107	10.7%

TABLE 2

No. of Kentucky drivers suspended according to cause. Source: The First Two Years[2].

Cause for suspension	No. of drivers
Failed to appear for medical examination	143
Suspended by Medical Review Board	22
Failed driver's license exam	23
Other reasons	44

4. Persons who are reported by a physician as being incapable of driving safely due to physical or mental infirmity.

5. Applicants for licenses who have obvious physical or mental impairments.

6. Other drivers when their driving behavior or record indicates that they are physically or mentally impaired."

Initial Data

During the initial years the above six "defaults" were the main avenues by which drivers came into the DLP. Subsequent administrative experience has modified these. The initial publications[1,2] do not provide complete data as to the frequencies of referral through each of the six routes above, except for certain age groups. For the 171 cases in age-group 16-20 years 166 were identified for three or more accidents within 24 months. Of the 73 cases 71 years or older 20 (27%) were referred for the same default and 50 (68%) through memos from courts and law enforcement officers. Taking these two age groups together 186 out of 244 or over 76% were brought into the DLP because of three or more crashes during 24 months.

TABLE 3

Drivers according to the route of referral to the DLP.

Referral route	No. of drivers	Percentage
1. Official record. . .	14	5.6
2. Lost consciousness. . .	3	1.2
3. Affidavit by 2 citizens. . .	13	5.2
4. Reported by a physician. . .	21	8.3
5. Obvious impairment. . .	64	25.5
6. Commonwealth attorney. . .	41	16.3
7. Epileptic seizure. . .	2	0.8
8. Law enforcement officer. . .	81	32.3
9. Other reasons (for ex. report from insurance co.)	12	4.8
Total	251	100

TABLE 4

Classification of 248 Kentucky DLP cases according to morbidity

Morbidity	No. of cases	Percentage of all DLP cases. N = 4222, 1972 thru 1983
Aphakia	71	1.6
Albinism	13	0.3
Homonymous Heminaopia	17	0.4
Diabetes	147	3.5
Total	248	5.8%

Nearly 11% (107) of the referred drivers were found to have medical conditions which could interfere with driving ability (table 1).

Medication compliance and seizure status of epileptics could not be completely evaluated by the initial report. Similarly, for other impairments it is not apparent whether they were well controlled and uncorrelated to the reason for the affected persons being in the DLP. From these initial figures alone it is not possible to establish the role of medical pathology in driving safety. To estimate the role of morbidity in crash involvement, comparison of crash rate of the population would be required. A 1983 study in Vermont[4] reported that crash rates for drivers with ischemic heart disease were less than those of age-sex matched groups in the state, even when corrected for estimated mileage driven.* Most likely this depends on change of driving habits after hospitalization. They probably selected less stressful time of day, and routes for their driving.

**This may be compared with 1979 U.S. Federal Aviation Authority data when three commercial pilots died in flight at the controls but no crashes or other accidents occurred.*

Evaluation

Two questions on the role of the DLP in improving traffic safety on Kentucky roads are raised:

A. Can the DLP be justified by statistics on performance?

B. Can the mechanism for entrance in DLP be improved?

The first question is answered affirmatively if the following conditions are satisfied:

The DLP is successful in identifying those drivers 1) who are dangerous in traffic, 2) who are potentially dangerous in traffic, 3) who, after referral, become safer in traffic or are taken off the road. Question A thus becomes three component questions.

Question B can be answered and improvements suggested if we can estimate the effectiveness of the present criteria and thereafter discard ineffective ones and retain the others. New ones can be included, if new conditions suggest such.

A. Is the DLP justified?

1. Does the DLP identify those drivers who are dangerous in traffic?

It is reasonable to assume that at least one of the parties involved in three or more crashes within 24 months is in a large proportion of cases dangerous in traffic. These drivers have demonstrated a high crash rate. The final actuality of danger in traffic is crashes. An overwhelming majority of the drivers in certain age groups (97% in age group 16-20) were referred to the DLP by this particular mechanism. The DLP may not get all such drivers since other studies[3,4] show that up to 83% of crashes may not be reported. It may also be that certain socioeconomic groups may be overrepresented since systematic bias in convictions has been reported.[5]

2. Does the DLP recruit potentially dangerous drivers?

Criteria 2-5 would certainly identify some potentially dangerous drivers and table 3 supports this contention. Available data do not establish the proportion of all potentially dangerous drivers that come into the DLP. A comparison between crash-claims data from insurance companies and the DLP data may provide a fruitful approach.

3. Do the referred drivers become safer or are they taken off the road?

The answer to the first part of the question requires followup of DLP drivers and their violation record over a number of years. Such analyses of Kentucky data are not available. Data from North Carolina[6], however, report improved crash rates for two years after the initial medical review for many disability categories. Data on the number of suspensions suggest an answer to the second part of the question. The initial Kentucky reports[1,2] indicate that 232 or 20% of a total of 1143 referral drivers were suspended.

If suspension be a measure of a driver's being dangerous in traffic, then the DLP does get some of them off the road. Further, six drivers voluntarily surrendered their licenses, five died of non-road causes, 52 were ordered to undergo periodic re-examination and were adjudged mentally incompetent (licenses cancelled) and 87 issued restricted licenses.

B. Can the mechanism for enrollment in the DLP be improved?

Part of the answer to this question lies in estimating the effectiveness of the present criteria. Criterion 1 (three or more crashes in 24 months) recruited a large percentage of cases in the DLP, at least for the age groups on which data were available. Criteria 2-6 are supported by reason. Unfortunately, no published data on the frequency of these routes of referral were available; to establish this, we took a systematic random sample of 400 cases, out of a total 11,300 cases on file as of December, 1983. Due to incompleteness and other variables we were able to use only 251 of these 400 cases, which is not a random sample of the total **11,300** cases of record. Certain years are under-represented. The data are summarized in table 3. Unfortunately, the initial six criteria had been increased to nine and the distinct category of three or more crashes in 24 months had been dropped. Some such cases were sorted under categories 1, 6 or 8 below. These were:

1. Has an official record kept by the Bureau of Vehicle Regulation indicating possibility of physical or mental impairment;
2. Indicated lost consciousness etc. before reportable motor vehicle crash;
3. Affidavit by at least two citizens as being incapable of operating a motor vehicle safely;
4. Reported by a physician as incapable of driving safely due to physical or mental infirmity;
5. Has obvious physical or mental impairments at the time of application for license;
6. Has been reported by a Commonwealth attorney, county attorney, county clerk, circuit clerk, sheriff, or judge as being apparently incapable of driving due to physical or mental impairment;
7. Has reported suffering an epileptic seizure or syncopal episode;
8. Reported by a law enforcement officer after being observed driving or behaving in a manner indicating possibility of physical or mental infirmity.
9. Other reasons (eg insurance company reports).

Two, 3, 4 and 5 above are the same as 2, 3, 4 and 5 off the previous six defaults. The new 1, 6, 7 and 8 are additions and replacements.

The selection and coding procedures yield some valuable information. Not all the categories are mutually exclusive and fully identifiable. For instance, a relative informed local authorities who in turn informed the licensing authorities; this may then have been sorted in any one of the categories 3, 5, 6, 8, or 9. A licensee receiving blind pension sorted out under category 9.

Table 3 shows that the two most common reasons are 5 and 8 totaling over 57% of all cases in recent years. Collectively, all the cases where authorities have reported (1, 2, 5, 6 and 8) accounts for 80% of the cases. It is likely that many drivers having three or more crashes are not currently being enrolled. Experience from the first three years of DLP indicates that this mechanism should be reinstituted until a follow-up analysis of those drivers indicates otherwise.

Present Issues

Commonly, when data are not available, careful application of sound reason and experientially derived common sense has to do, provided there is a strong need for measures. In some countries (i.e. Sweden) for certain types of morbidity, such as diabetes and visual impairment, periodic medical examinations are mandatory. This is not always founded on hard data. Indirect validation appears if the impairment group is overrepresented among high crash rate drivers. Kentucky cases reviewed by specific types of morbidity from 4,222 DLP cases during the 12 years 1972-1983 are summarized in table 4.

Although reliable prevalence figures for these four conditions in the general U.S. or Kentucky populations are not available, the proportion with aphakia and diabetes are probably within expected U.S. population limits. The number of cases of albinism and heminaopia are so small as to provide only experiential data.

Summary

Available data derived from Kentucky drivers indicate a significant portion of drivers referred to the DLP are dangerous or potentially dangerous motor vehicle drivers. Documentation of success in making these drivers safer is indirect in that about ⅕ of the Kentucky DLP drivers were suspended during the first years. Follow-up research from similar activities in North Carolina reports improvement in crash rate. It is premature to exclude three or more crashes within 24 months as a separate route for referral to the DLP. Follow-up of Kentucky records should be restored to at least a 10-year span. Continuing statistical analysis and long-term follow-up are needed to establish the significance of various medical impairments in the driving population. In 11% of cases, Kentucky drivers referred to DLP have demonstrated medical limitation that could interfere with driving ability, thus warranting medical analysis and follow-up. Both volunteer physicians and the state government staff should further these two decades of helpful work and recurrently analyze their methods as well as their efficacy.

References **1.** Basset JE: A three year summary of the Kentucky Driver Limitation Program pp 104–108 in Proceedings of the eleventh annual meeting of the American Association for Automotive Medicine. Ed. by Keeney AH. Charles C Thomas, Illinois, 1970. **2.** Sullivan DC, Fuqua VB, Ashley FM: The First Two Years (1964-1966). Department of Public Safety, Department of Health and the Kentucky Medical Association, Frankfort, Kentucky, 1967. **3.** Roosmark PO and Fraki L: SVI report no. 36. Svenska Vaginstitutet, Stockholm, 1966. **4.** Waller JS and Naughton JR. TJ: Driving and crash experience and Ischemic Heart Disease-implications and countermeasures, pp 249–261 in Proceedings of the 27th conference of the American Association for Automotive Medicine, Arlington Heights (IL, USA), 1983. **5.** Waller PF, Lohman L de S, Freeman J, Stewart JR, Reinfurt DW: Systematic biases in the relationship between traffic violations committed and recorded convictions, pp 283–300 in Proceedings of the 27th conference of the American Association for Automotive Medicine, Arlington Heights (IL, USA), 1983. **6.** Popkin CL, Stewart JR, Lacey JH: An examination of the driving performance of medically evaluated drivers, pp 263–281 in Proceedings of the 27th conference of the American Association for Automotive Medicine, Arlington Heights (IL, USA), 1983.

Acknowledgement

The authors express a special appreciation to Mr. Gary Brunker and his associates in the Justice Cabinet Division of Driver Licensing, Frankfort, Kentucky, for valuable assistance in maintaining the related state records and making them accessible for study and statistical analysis.

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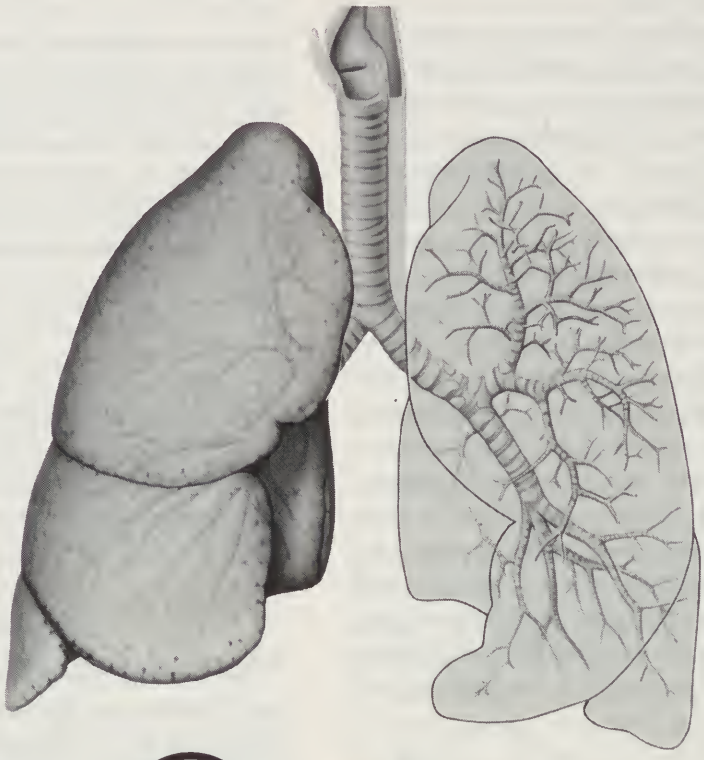
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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies shoufd be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor® (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[D617B2R]

Note. Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

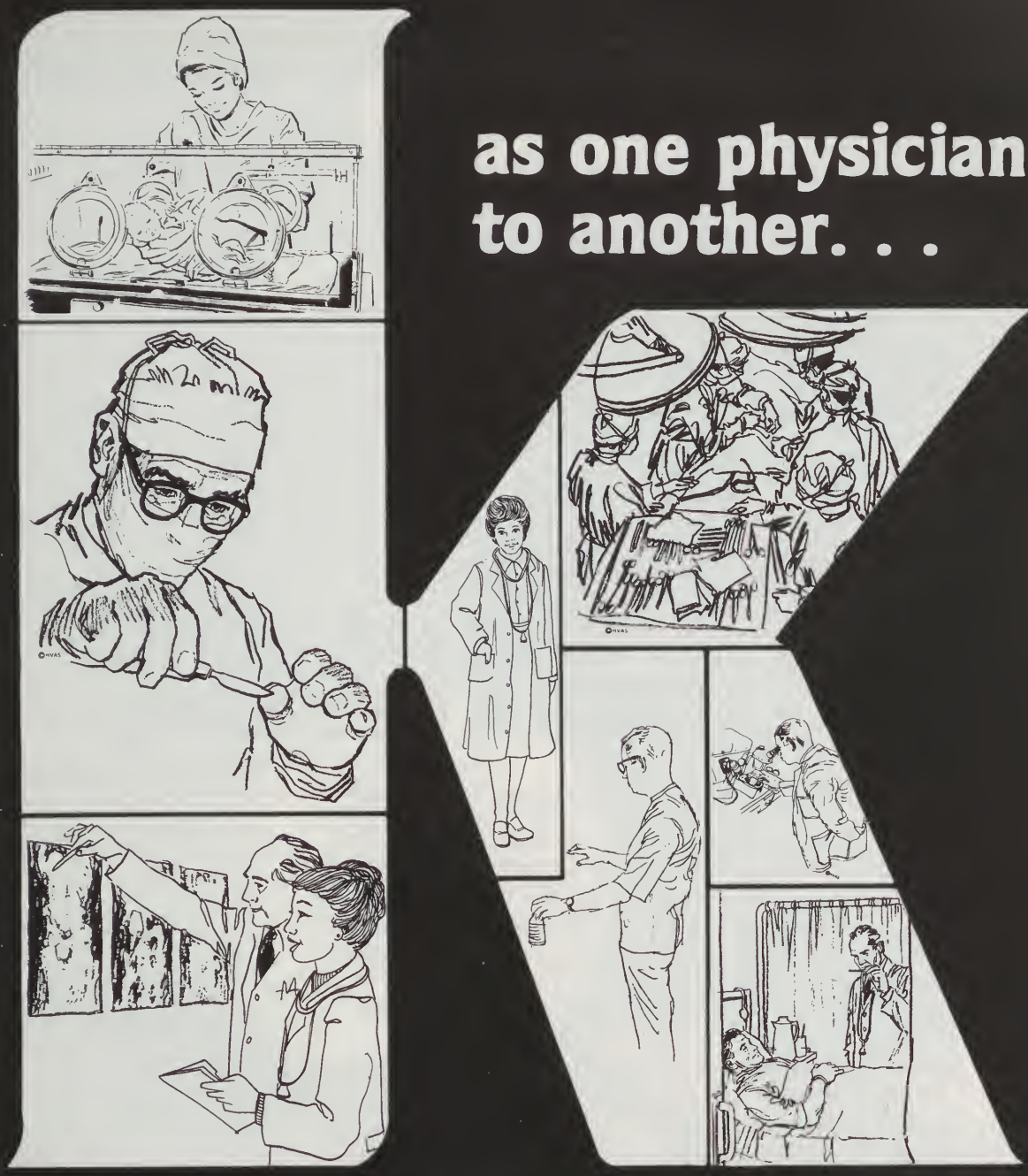
Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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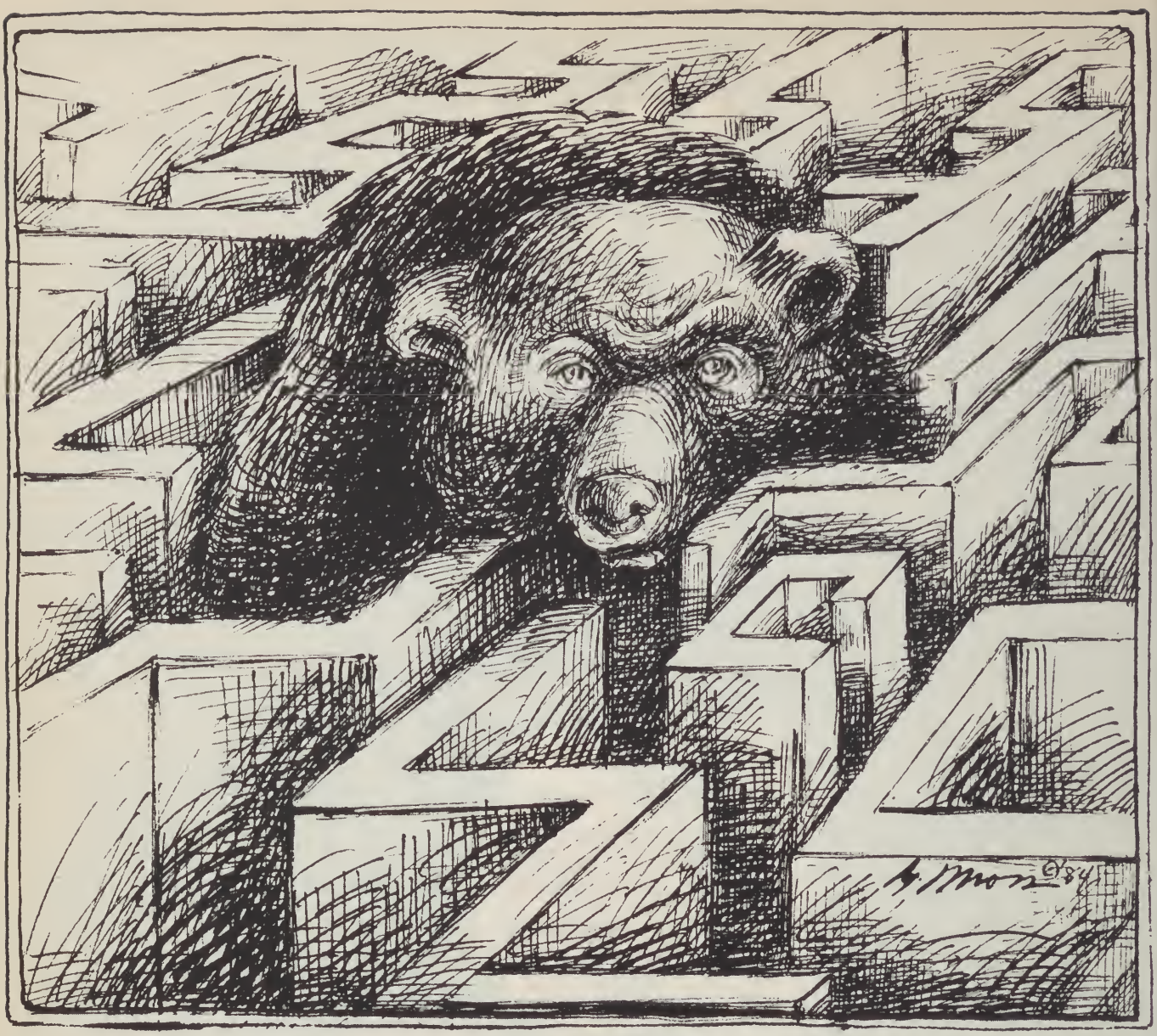
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LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

Since your great journal goes to all members of the Kentucky Medical Association, I would like to express my sincerest sympathy to those unfortunate members who could not or did not attend the conference, Symbiosis-Survival in a Competitive Medical Environment which was held at the Executive Inn Rivermont in Owensboro on 15 and 16 March 1985.

It was a superb conference, planned well and executed efficiently. The speakers touted as America's foremost experts lived up to their billing, presented their content-filled material professionally, and their jokes were even new and humorous.

The planning committee for this conference deserves the gratitude, appreciation and praise-worthy credit for a job exceptionally well done. I was proud of my KMA for doing this fine program. I was glad I attended and I learned a lot!

Ann Attendee, M.D.
Louisville, KY

Milton F. Miller, M.D.
622 Medical Tower South
Louisville, Kentucky 40202

Dear Dr. Miller:

I have just read your editorial in the March issue of the *Journal of the Kentucky Medical Association*, and want you to know how fine I thought it was.

As I am sure you are now aware, the nose count is up to nearly 2,100 doctors who are participating in the Kentucky Physicians Care/Hot-line and Referral System Program. It is my belief that we will get many more participating physicians as time goes on and that we will all share a great sense of satisfaction from this program.

It is my intent to do everything possible to see that Kentucky physicians get the credit they so justly deserve.

With best regards, I am

Brereton C. Jones, President
Kentucky Health Care Access Foundation, Inc.

KMA and KPRO Sponsor Second Socio-Economic Conference

More than 200 Kentucky physicians and their spouses recently participated in the Socio-Economic Conference in Owensboro. Joint Survival in a Competitive Medical Environment, drew excellent reviews from the attendees. The Conference featured several of America's outstanding speakers including Chuck Rund, Director of Research and Strategy for the Reagan/Bush Campaign; Richard F. Corlin, M.D., Vice Chairman, AMA Long-Range Planning Committee who keynoted the Conference. All speakers urged physicians to prepare themselves for the tremendous changes in medicine and in the public's perception of physicians and the medical delivery system. KMA and KPRO combined to present the Conference.





From left to right: Wally O. Montgomery, M.D., Paducah, KMA President-Elect; Charles C. Smith, Jr., M.D., Louisville, KMA President; U.S. Senator Wendell H. Ford (D) Paducah; Nelson B. Rue, M.D., Bowling Green, Chairman, KMA Board of Trustees.



Charles C. Smith, Jr., M.D., KMA President, spoke on the topic, "Natural Selection or Medical Darwinism/Who Will Survive?"



Morton Marcus, left, Professor of Economics, Indiana University, talks with Richard F. Corlin, M.D., Vice Chairman, AMA Long-Range Planning Committee.



Garner E. Robinson, M.D., foreground, KMA Trustee, 13th District.

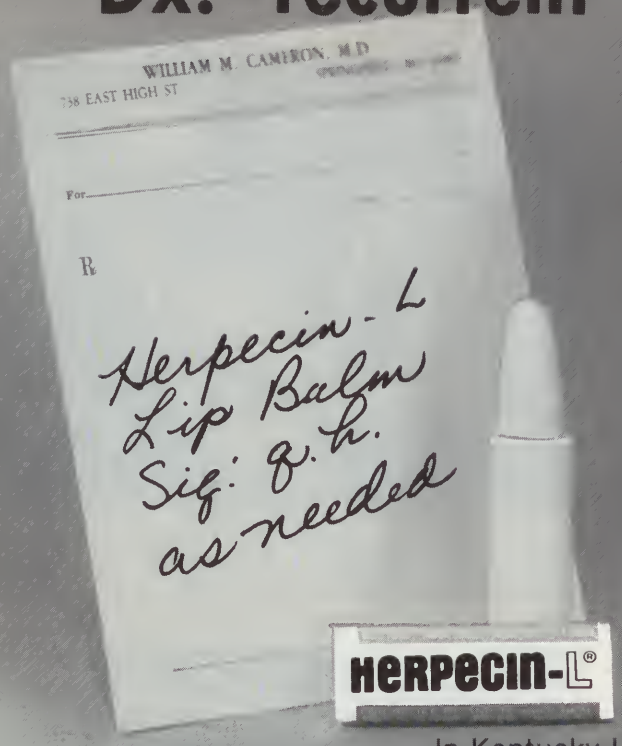


Stuart Graves, Jr., M.D., KPRO President.



Richard F. Hench, M.D., left, KMA Vice President and Morton Marcus.

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Communication Tools

Even though today's patient is more "consumer-oriented," choosing a physician is usually not based on clinical skills alone. In addition to providing quality medical care, a physician must be able to communicate to the public what services are provided and the manner in which those services are provided. Communication, whether oral or written, plus good service equals a successful practice. A combination of each presents an effective marketing plan for the doctor and the patients served.

The Spoken Word

First of all, physicians must take the time to talk with their patients and answer all the questions they have in a non-rushed, easy to understand manner. The five key questions every patient wants answered, whether they ask them or not, are:

1. What's wrong with me?
2. What caused it?
3. What are you going to do about it?
4. How much will it cost?
5. How long will it take?

Get It In Writing

Oral communication, however, is often misunderstood communication, for what is said often is not what is heard. Comments should be followed by written instructions and/or other printed medical information.

An example of an effective oral/written communication piece involves giving a "Patient Communication Sheet" to every appointment. This simple, one page form consists of the patient's name and date and a section on "Important Questions to Ask the Doctor." The bottom half of the form is for the physician's written instructions and answers to the patient's questions.

As a log of the patient's chief concerns and the physician's responses, this marketing piece serves several purposes:

1. It minimizes complaints about waiting time, giving the patient a worthwhile way to channel what he considers unproductive time into time to think about why he is there.

2. It maximizes compliance with the treatment plan offered.

3. It eliminates unnecessary phone calls to the physicians's office or home.

Patient Information Booklet

According to a recent survey, more than half of all practices now have some form of a Patient Information Booklet to let their patients know how their offices work. The Patient Information Booklet can have a twofold purpose. It can give patients information about the practice they have chosen, as well as give nonpatients information that will lead them to choose a particular practice.

An individually tailored booklet should include:

- Your name, office address, perhaps a map, all telephone numbers, specialty and training.
- Services you provide. Explain what you do, the type of equipment you have, your referral procedures for other services not provided.
- Office hours and appointment procedures. Explain any policies on cancellations or "no-show" and how your office handles acute "walk-ins."
- Emergency procedures. To a large degree, you can tell your patients what is and what is not an emergency.
- Arrangements for after-hours coverage, *ie*, special phone numbers, the emergency Room, calling the doctor's home, *etc.*
- Hospital(s) where you have privileges.
- Fee and Insurance procedures. Although you need not list fees, you do want to let your patients know how you expect payment and whether you will perform insurance billing as a service.
- Contacting the practice by telephone, *ie*, when to expect a call-back, who is qualified to give out instructions, how to have refills approved, *etc.*

If You're Still Undecided

Producing a Patient Information Booklet can be as simple as Xeroxing a typed sheet of information or as elaborate as having a printer typeset and print a small brochure (one that will easily fit in a monthly statement envelope). You do, however, want to remember that every piece of literature that emanates from your office says something about you to the reader and it is necessary to make a favorable impression.

The benefits of the Patient Information Booklet can more than pay for the production costs as it cuts the volume of telephone calls to your office by answering questions which can monopolize your phones and office staff time. It also can clear up any confusion over payment at time of service or handling insurance claims. Most of all, it can give your patients the needed assurance that you are genuinely interested in their well-being and encourage them to assume responsibility for part of their own health care. It also tends to head off complaints about your inaccessibility - one of the chief forces that convert steady patients into doctor-shoppers.

How To Use It

As previously mentioned, the Patient Information Booklet can be an important tool, not only for your current patients, but also for prospective patients. In addition to making the booklet available in waiting and examining rooms and mailing with monthly statements, the office brochure can be sent to a target market or audience in your area. It could be included in a new patient "Welcome Package." The Patient Information Booklet can also be a useful source of information for referring physicians and be given to those patients you are called on to treat in the Emergency Room. The booklet can give that patient without a regular physician the opportunity to learn about your complete service.

Communication is the key element in any relationship, particularly that of doctor and patient. A Patient Information Booklet can often make the difference between a confused and uneasy person and a satisfied, well-informed patient.

"P.R.N. - Practice Relations Notes" is edited by the KMA Member Services Department. Please direct any inquiries or specific problems to them at 3532 Ephraim McDowell Drive, Louisville, KY 40205.

Members in the News

Doctor Carloss Honored by National Group

The American College of Physicians (APC) announced that Harry Worthington Carloss, Jr., MD, of Paducah, KY, has been elected to Fellowship in the 60,000-member national medical specialty society. Dr. Carloss, a specialist in oncology/hematology, was honored during the Convocation ceremony at the College's Annual Session in Washington, DC, March 28-31, 1985.

Dr. Carloss is one of 17,000 physicians honored with Fellowship in the College—about 600 have been elected this year. A 1975 graduate of the University of Louisville, Dr. Carloss has been a resident of Paducah for five years and is on the staff of Lourdes Hospital and Western Baptist Hospital.

Election to Fellowship in the College signifies that a physician has been recognized by his colleagues as having attained a level of medical scholarship and achievement in internal medicine. Usually, Fellowship means that the honoree has authored articles in medical journals, presented papers at medical meetings, is involved in the teaching of young doctors and medical students and has made other notable contributions to the advancement of medical science and practice.

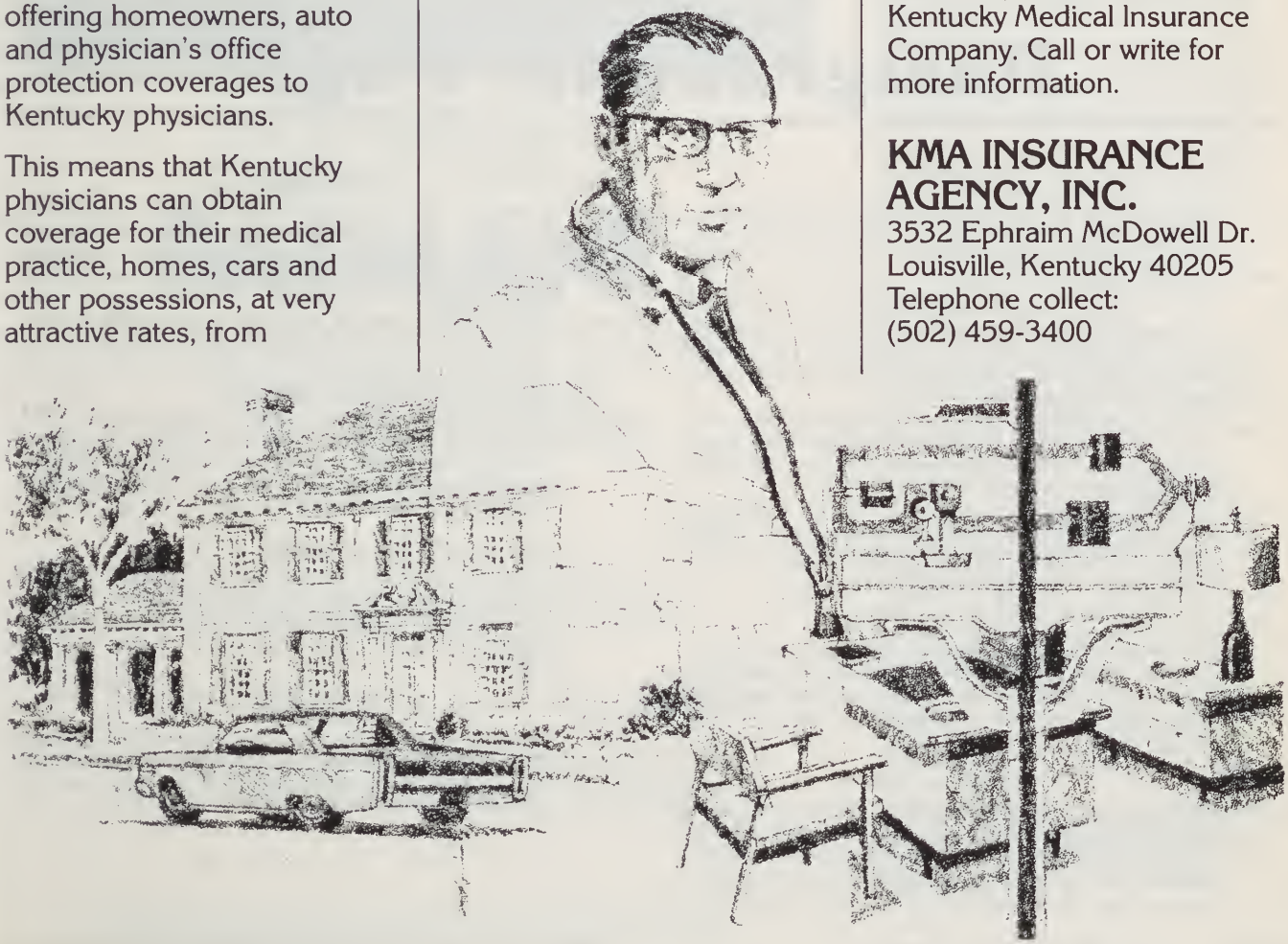
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Postgraduate Page

JUNE

5-8 Alaska State Medical Association Annual Convention, Haines, Alaska. Contact: Martha MacDermaid, Alaska State Medical Association, 4107 Laurel Street, Suite 1, Anchorage, AL 99508, (907) 562-2662.

6-8 New Developments in Cardiovascular Disease — Diagnosis and Treatment 1985, Hyatt Regency Hotel, Lexington, Kentucky. Contact: Joy Greene, Continuing Medical Education, 132 College of Medicine Office Bldg., University of Kentucky, Lexington, KY 40536-0086, (606) 233-5161.

7-8 Symposium on Diseases of the Chest, Jenny Wiley State Park, Prestonsburg, Kentucky. Contact: Medical Staff Office, Central Baptist Hospital, 1740 S. Limestone St., Lexington, KY 40503, (606) 278-3411

19-22 Annual Sports Medicine Conference — "The Art & Science of Sports Medicine," University of Virginia, Charlottesville, Virginia. Contact: Frank C. McCue, M.D., University of Virginia, P.O. Box 3785, Charlottesville, VA 22903, (804) 924-3873.

JULY

18-20 7th Annual Bowman Gray Mountain Meeting, Grove Park Inn, Asheville, North Carolina. Contact: Division of Continuing Medical Education, Vanderbilt University School of Medicine, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

AUGUST

15-18 Ninth Annual Association of Academic Health Centers Continuing Education Conference, Sheraton Music City Hotel, McGavock Pike, Nashville, Tennessee. Contact: Vanderbilt University School of Medicine, Division of Continuing Medical Education, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

SEPTEMBER

5-7 Southeastern Occupational Health Conference, Birmingham, Alabama. "Health and Safety Needs of a Changing Work Force." Contact: Mary Snow, The University of Alabama at Birmingham School of Public Health, University Station, Birmingham, AL 35294, (205) 934-3676.

9-13 Internal Medicine Review, Vanderbilt University School of Medicine and the American College of Physicians; Co-sponsors. Program Chairman: John Oates, M.D. Contact: Division of Continuing Medical Education, 615-322-4030.

11-14 Fifteenth Annual Peripheral Vascular Disease Symposium "Critical Issues & Controversies in Vascular Surgery," The Hyatt on Capitol Square, Columbus, Ohio. Contact: Shelly J. Hershberger, Saint Anthony Medical Center, 1492 E. Broad St.; Suite 1100, Columbus, Ohio 43205, (614) 251-3680.

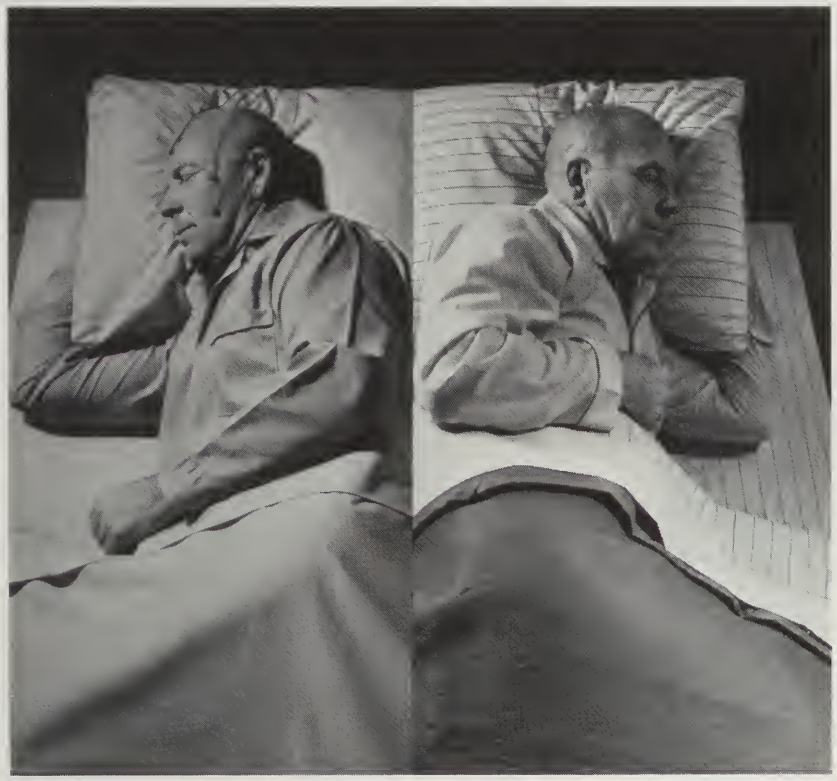
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23-27 Pulmonary Diseases/Critical Care Medicine, Sandestin Beach Hilton Hotel, Destin, Florida. Contact: Division of Continuing Medical Education, Vanderbilt University School of Medicine, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

NOVEMBER

5-8 American Academy of Clinical Anesthesiologists Meeting. Atlantic City Resorts International Hotel, Atlantic City, New Jersey. Contact: Donald G. Catron, M.D., AACA, P.O. Box 11691, Knoxville, TN 37939, (615) 588-6279.

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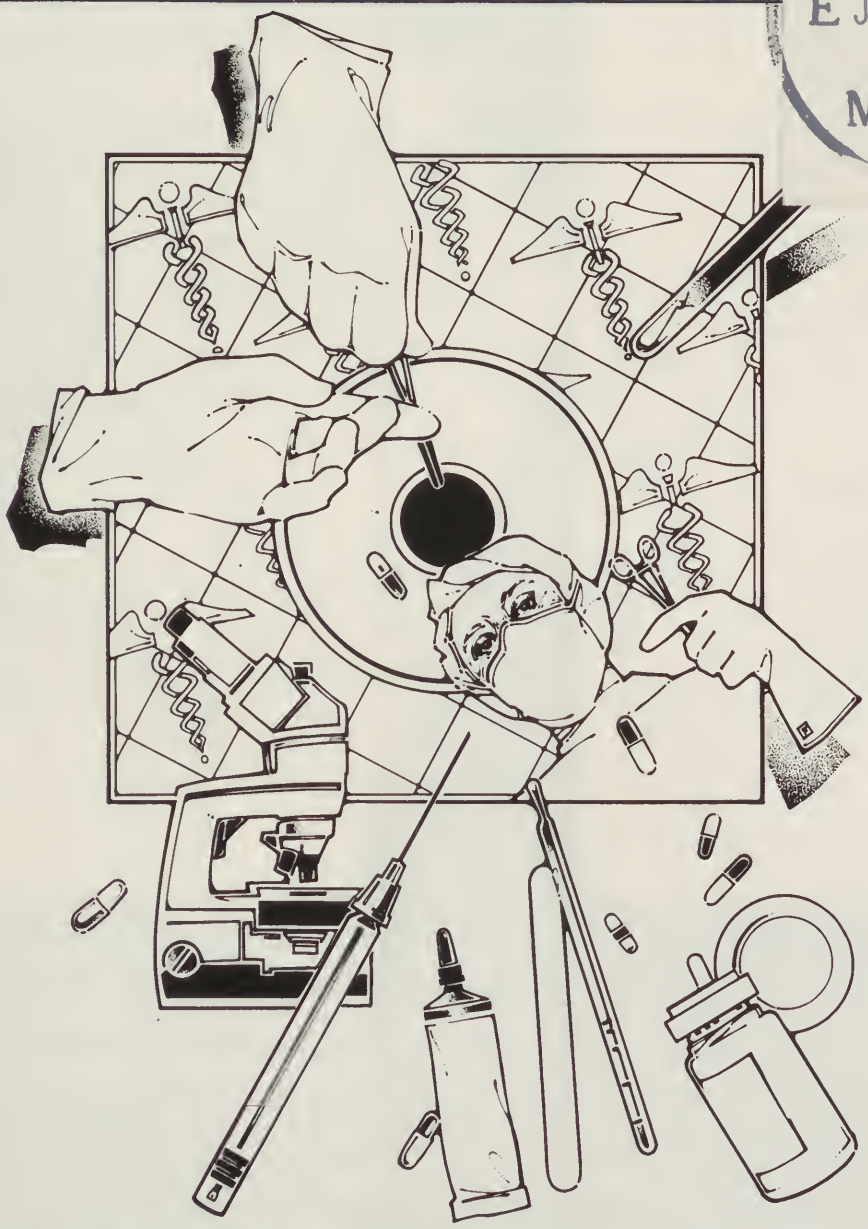
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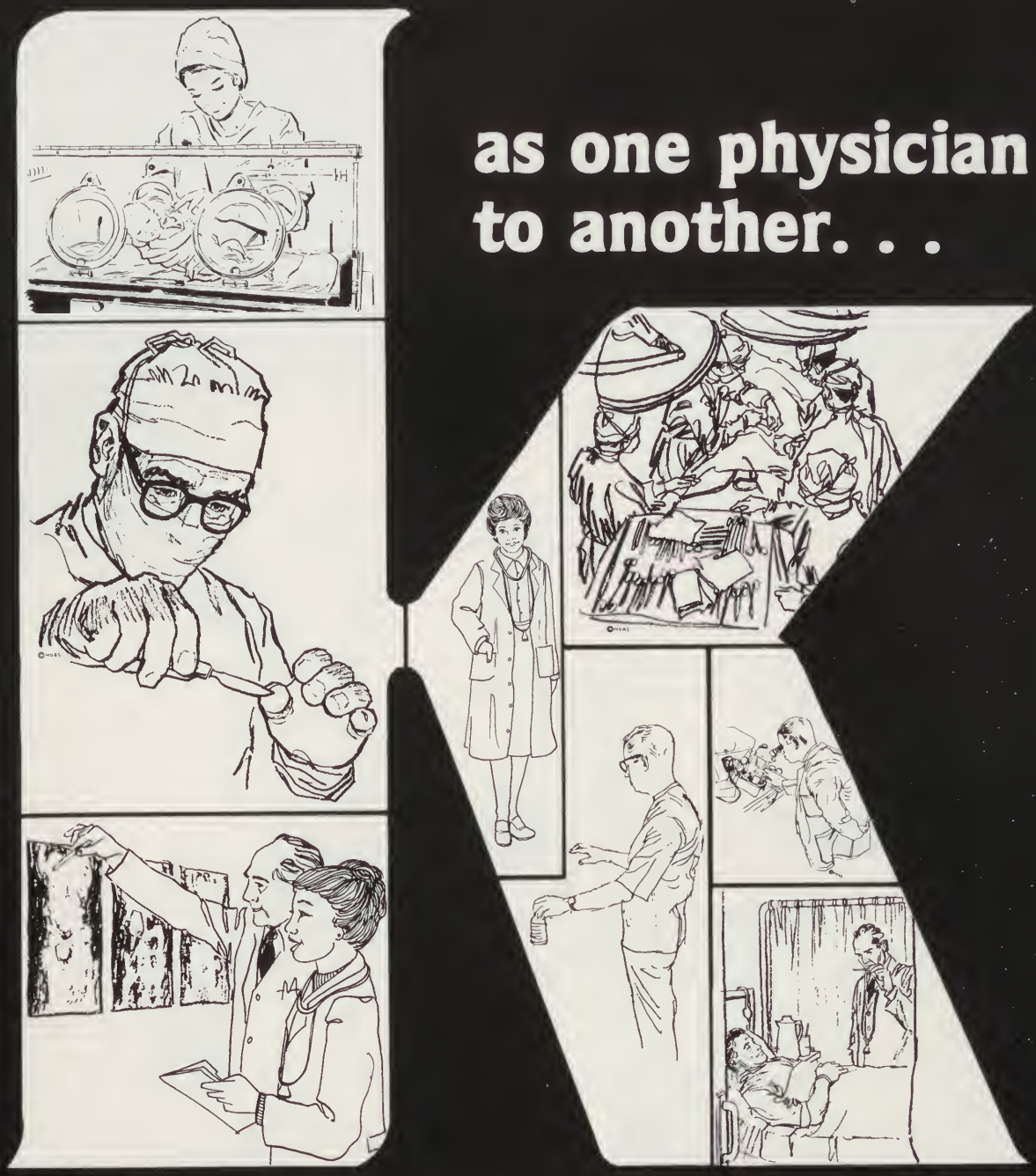
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"The Sky is Falling!"—or Is It?

In the old nursery rhyme by the same name, Chicken Little was walking through the woods one sunny day when an acorn fell on her head from a tall oak tree. Immediately assuming that the sky was falling, she ran through the woods spreading the word to her friends, who fell in behind her to join in filling the forest with panic.

In the past three or four years, as the reshaping of the practice of medicine in this country has become more and more apparent (it is no longer the future, it is *now*), I have found in myself and many of my colleagues a growing sense of frustration and panic. We as professionals, so quick to embrace new technology, are slow to accept changes in our practice patterns. There has never been a decade in the history of American medicine so filled with change. Change itself is perhaps the only constant. The "Changing Trends in Medicine" committee of the KMA, the AMA Leadership Conference in Chicago this past February, our "Joint Survival" economic conference in Owensboro in March are examples of our attempts to stay abreast of the developments as they occur and to outline some coping stategies for physicians. These changes are happening so rapidly it is difficult to keep pace, much less develop long-range goals.

How did this happen? The public image of the physician has rapidly deteriorated in the past decade. Medical care costs escalated more sharply than other costs in a time of national inflation-recession. Our "patients" became "consumers" and demanded the right to comparative shopping. The entry of the federal government into the health care delivery system through the Medicare program in the late 60's started the avalanche. Pressures from big business and insurance companies for cost containment followed rapidly as the economy slowed further. Most physicians enter our profession, at least to some extent, because of the autonomy it has traditionally afforded. We now see this rapidly eroding due to third party interference.

The rise of malpractice litigation

with million-dollar-plus awards becoming commonplace has created a crisis in medical malpractice insurance coverage. Some specialists are quitting, rather than attempt to pay ever-increasing premiums. We are faced with an estimated 70,000 surplus physicians by 1990. We must compete. Market? Advertise? The sky **is** falling! Our medical education and research programs are in turmoil with reduced federal funding from a budget-deficit reduction-minded Congress. The Social Security system is in trouble, and the poor and the aged are caught in the squeeze. People who need health care are not receiving it. We are threatened by PPO's, HMO's, and DRG's. Hospitals are competing with physicians for a declining patient-base. It seems we are powerless to control our futures. Through our very effective KMA and AMA legislative specialists, through KEMPAC and AMPAC, medical legislation is being carefully monitored and influenced. In spite of this, we find the Medicare freeze likely to be extended until 1986. The sky is falling!

What can we do to co-exist with this restructuring process, which the May 17, 1985 issue of *AMA News* likens to living in a house while it's being remodeled? First, of course, we must be more informed. Then, we must assert ourselves and talk loudly and clearly about issues of concern to the medical profession, the American people, and the future of American medicine through our professional organizations. More importantly, we must accept this new world as a challenge, an opportunity for growth. We as individuals in our daily routines must adopt a positive attitude that we **can** adapt to this changing environment, not primarily concerned about maintaining the highest possible income, but believing in our system of healthcare delivery and its position as the world's leader. We must concentrate on delivering the best possible care, with cost in mind, to each and every patient. We must care for them and their families as fellow human beings. We must take steps to assure that the healthcare system is accessible to all, rich and poor alike. We in Kentucky with our unique Health Care Access Foundation are doing our best to meet this need.

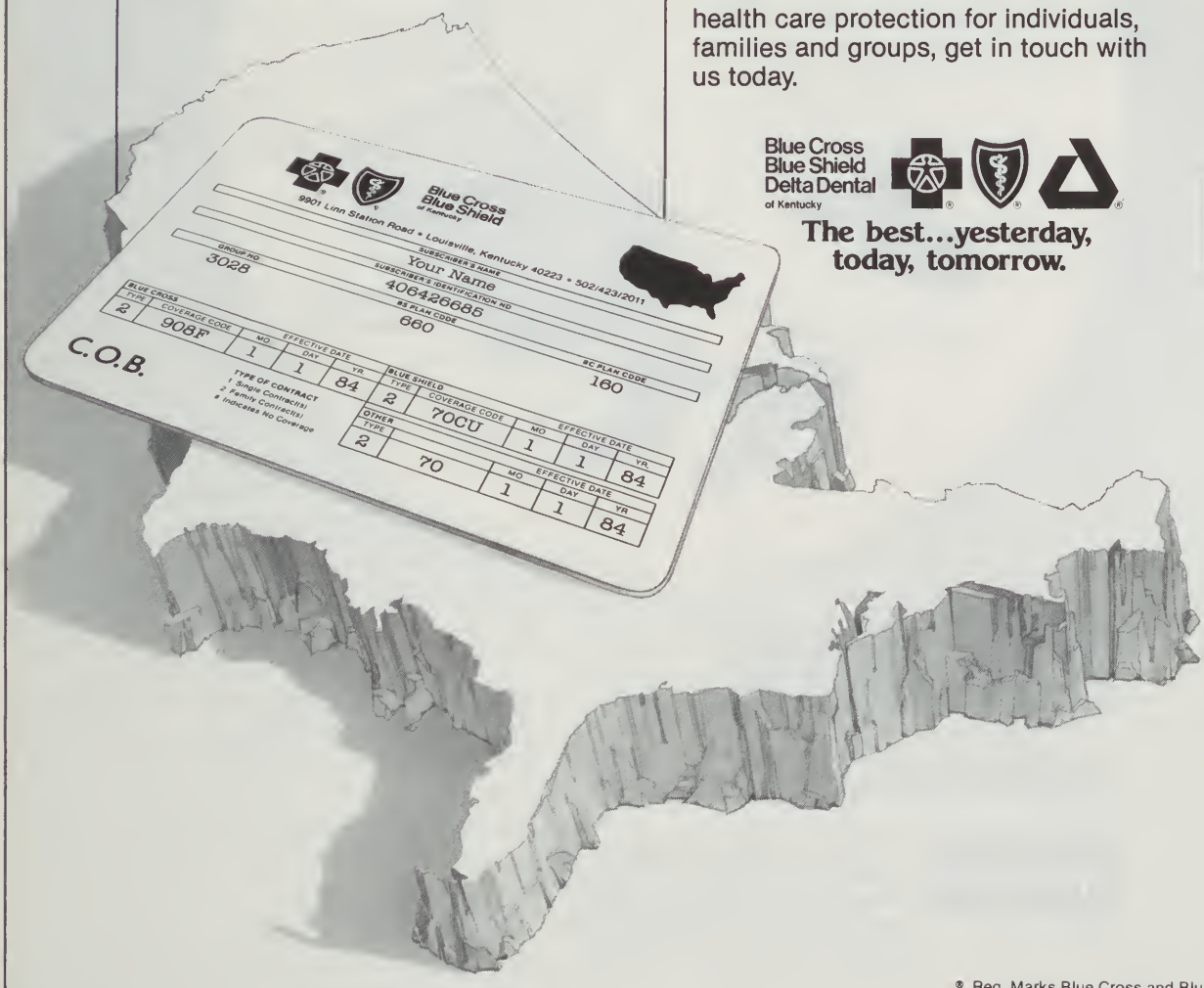
You may remember the conclusion to the story of "Chicken Little." One of the older and wiser animals in the forest looked up to assess the situation and told them all that the sky was **not** falling, but merely an acorn had fallen on her head, the moral being that our circumstances are just what we interpret them to be. Of course, we must recognize the enormity of the problems we face and the need to deal with them. However, we cannot blindly oppose change or wish it away. In the face of these adversities, we can maintain a sense of optimism and equanimity within ourselves and for our profession as well as our patients. I believe in the past, the present, and the future of medicine, and that we will not only endure this time of change, but do so with optimism, success, and pride.

Nelson B. Rue, M.D.
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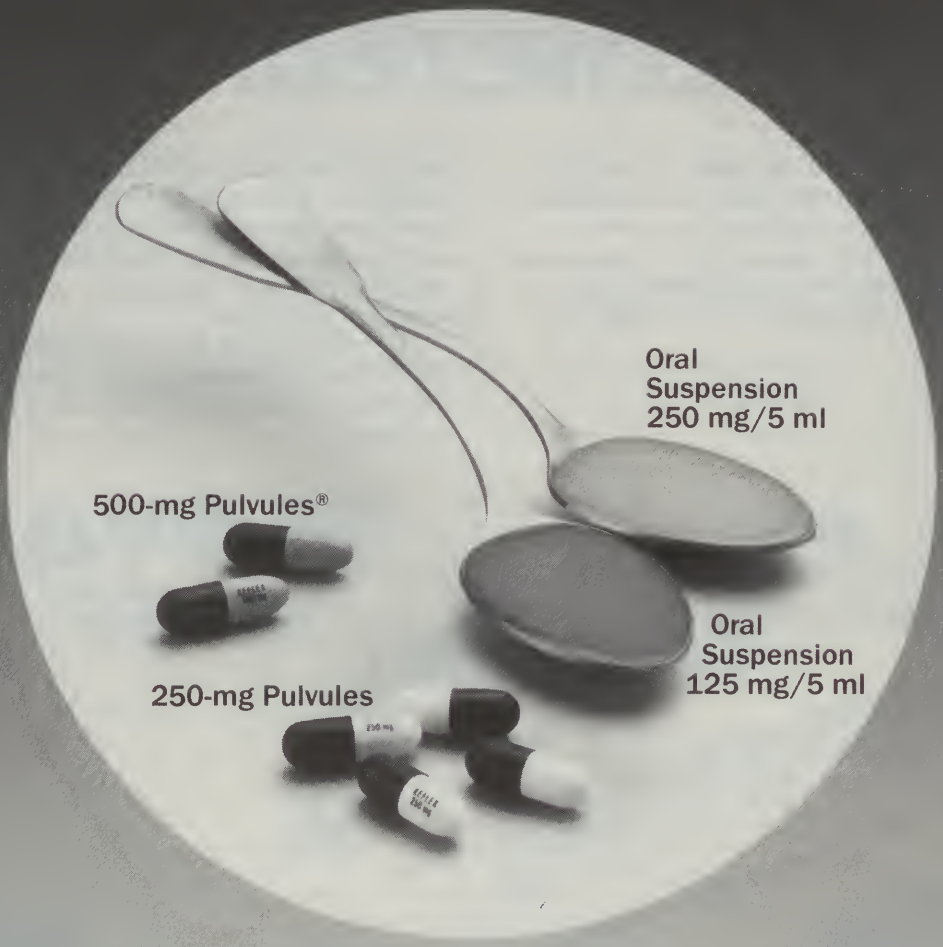


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Selective Indications for Subtotal Abdominal Hysterectomy

HAROLD W. BAKER, M.D.

Subtotal abdominal hysterectomy should be chosen over the total operation when the cervix is benign and high risk conditions for hemorrhage or fistula formation are encountered. In a five-year period 10,306 total abdominal hysterectomies and 46 subtotal hysterectomies were performed. Seven hospital deaths occurred, five of which were Stage III and Stage IV carcinoma of ovary, one Stage III Carcinoma of the tube, and one endometrial carcinoma who died seven days post operatively of myocardial infarction and mesenteric thrombosis. Eighteen vesicovaginal fistulas and one ureterovaginal fistula occurred and two patients required colostomy. Causes for the complications are discussed and seven very difficult cases are presented that should have done better if subtotal hysterectomy had been done.

The term "abdominal hysterectomy" meant the removal of the body of the uterus and preservation of the cervix until about 1925. The change to total hysterectomy was brought about by such pioneers as Masson[1] and Richardson.[2] Some gynecologists could not make the change, but residents in most teaching centers were performing the total operation by the early 1940's. The pendulum swung so far that since the mid 1950's surgeons who left the cervix were often censured. Even in these modern times there are a few very serious cases that will do better if the benign cervix is left in place.

The purpose of this study is to report serious complications of total abdominal hysterectomy, reasons why sub-total hysterectomies were done, and a review of cases that would have done better had the cervix been left in place.

Material

The study was made from the cases treated in the five-year period from January 1, 1975 through December 31, 1979, in the 10 general hospitals of Jefferson County, Kentucky, which serve approximately one million persons. No vaginal or radical hysterectomies were included. These 10 institutions are designated "The Area Hospitals."

In the five year period in the Area Hospitals there were 10,306 total abdominal hysterectomies and 46 subtotal hysterectomies. The complications are given in Table 1. No serious complications occurred when the total abdominal hysterectomy was done for carcinoma-in-situ of the cervix but one death occurred in a case of endometrial carcinoma.

Complications arising outside the Area Hospitals referred for corrective surgery are given in Table 2.

The predisposing factors in the development of the 18 vesicovaginal fistulas are given in Table 3. In two of these cases laceration of the bladder was recognized and repaired during the hysterectomy; nevertheless a fistula developed. In another two cases post operative bleeding occurred requiring packing and suturing and in a few days a fistula developed.

The seven hospital deaths are given in Table 4. Five were total and two were subtotal but review showed no problems were encountered in removing the cervix.

The indications for the choice of the subtotal hysterectomy are given in Table 5. Included in "Other Factors" were adhesions, deep pelvis, excessive bleeding, and medical problems. Miscellaneous reasons included previous abdomino-perineal resection in which the uterus was densely fixed far posterior, ruptured tubal pregnancy with bleeding not controlled by primary salpingo-oophorectomy, and medical problems. Obstetrical indications included placenta accreta, placenta praevia,

TABLE 1
NUMBER OF HYSTERECTOMIES AND COMPLICATIONS OVER A FIVE YEAR PERIOD

	No.	%
Total abdominal hysterectomy	10,306	99.56
Subtotal abdominal hysterectomy	46	0.44
Hospital deaths	7	0.07
Vesicovaginal fistula	18	0.17
Ureterovaginal fistula	1	0.01
Lacerated bladder, repaired	2	0.02
Lacerated rectum, colostomy	2	0.02

TABLE 2
COMPLICATIONS OF TOTAL ABDOMINAL HYSTERECTOMY PERFORMED OUTSIDE OF AREA HOSPITALS

Vesicovaginal fistula	9
Ureterovaginal fistula	1
Rectovaginal fistula	3

TABLE 3
PREDISPOSING FACTORS IN DEVELOPMENT OF 18 VESICOVAGINAL FISTULAS

Endometriosis	2
Pelvic inflammatory disease	1
Previous cesarean section	2
Myoma under bladder	1
Traumatic coitus	1
Multiple lacerations of bladder	1
None, surgeon surprised	10
Total	18

TABLE 4
HOSPITAL DEATHS

No. of Cases	Causes of Death	Patient's Diagnosis	Interval Between Hysterectomy and Death
1	Pulmonary Embolus	CA of Ovary Stage III	13 days
1	Gram Negative Infection	CA of Ovary Stage III	9 days
3	Sepsis and Renal Failure	CA of Ovary Stage III & IV	7-50 days
1	Sepsis and Renal Failure	CA of Tube Stage III	34 days
1	Myocardial Infarction and Mesenteric Thrombosis	Stage 1 Adenocarcinoma of Endometrium	7 days
7	Total		

TABLE 5
INDICATIONS FOR SUBTOTAL ABDOMINAL HYSTERECTOMY

Stage III and IV ovarian carcinoma	9
Severe endometriosis	5
Severe pelvic inflammatory disease	5
Large myomata plus other factors	5
Obesity plus other factors	4
Miscellaneous indications	6
Obstetrical indications	8
Non gynecological indications	4
Total	46

and post cesarean infections. Non gynecological indications included carcinoma of colon, perforated diverticulitis with cul-de-sac abscess and castration for metastatic breast carcinoma.

Forty-three of the 46 subtotal hysterectomy cases did well. Operative time and blood loss were reasonable, and there were no serious post operative complications. There were two deaths in Stage III and IV carcinoma of the ovary subsequent to surgery. One patient, who already had an ileostomy for Crohn's disease, developed an ileocervical fistula. Subsequent surgery corrected this fistula.

In addition to the complications listed in Table 1, seven cases were found in which very hazardous surgery had taken place. These are described so that the reader may decide if the patient would have benefitted both during and after surgery if the cervix had been left in place.

Case 1: Age 19. Severe P.I.D. Left ureter inadvertently severed, then repaired by urologist. TAH, bilateral S&O. Operative time five hours. Blood loss 2500 cc. Readmitted 12 days P.O. with intestinal obstruction. Explored and adhesions were released. Two more units of blood given. Discharged 18th P.O. day.

Case 2: Age 42. Myoma 20 × 14 cm. Previous right nephrectomy. Left ureter was accidently ligated while trying to control bleeding. Suture removed and ureter repaired over catheter. TAH, bilateral S&O. Operative time seven hours. Blood loss 3000 cc. Replaced seven units. Discharged ninth P.O. day.

Case 3: Age 49. Menometrorrhagia. Three previous cesarean sections, tubal ligation and one D&C. Inadvertent 3 cm rent in bladder while trying to take down the bladder. Urologist repaired it. Gyn continued with TAH, bilateral S&O. Operative time three hours. Blood loss 800 cc. discharged 11th P.O. day.

Case 4: Age 40. Tubo-ovarian abscesses and ischemic small intestine. Small bowel resection, TAH, bilateral S&O. Operative time 3 ½ hours. Discharged six weeks P.O.

Case 5: Age 51. Severe P.I.D. Massive bleeding before reaching the cervix. Hot packs did not help. TAH, bilateral S&O. Bled severely while trying to close vaginal cuff. Operative time 5½ hours. Blood replaced six units. I.C.U. one day. Discharged 11th P.O. day.

Case 6: Age 32. Endometriosis cyst 25 cm. Dense adhesions and oozing before reaching the cervix. TAH, bilateral S&O. Operative time 1¼ hours. Blood loss 400 cc but six hours later bled from vagina. No surgery done but four units of blood replaced. Discharged 12th P.O. day.

Case 7: Age 46. Multiple myomata and severe menorrhagia. Two previous cesarean sections and tubal ligation. Dense adhesions encountered in trying to take bladder down. TAH. Operative time 1¾ hours. Hb dropped 2 gms. Pulmonary emboli seventh P.O. day. Heparin given. Four episodes of severe vaginal bleeding requiring four units of blood. Discharged 28th P.O. day.

Technique

When the surgeon is operating on a high risk case for hemorrhage or fistula formation, and the cervix is benign, consideration should be given to amputation of the fundus before deciding whether to remove the cervix or not. This maneuver will give better exposure, reduce bleeding and permit the operator to get the pelvis dry before continuing. If the patient is in good condition, then the cervix can be removed. When severe damage to the bowel or bladder has occurred during surgery, there is an increased possibility of post-operative development of rectovaginal or vesicovaginal fistulae respectively. The large vaginal cuff with raw edges and multiple sutures required if a total hysterectomy is performed offers an inviting area to which the damaged bowel or bladder may become adherent. If a subtotal hysterectomy is chosen, however, the cervical stump, can be coned downward about one centimeter and the small cervical canal opening of a few millimeters can be sealed completely by suturing the coned stump tightly closed. Thus, there is no opening into the vagina. If the bladder has been damaged, the pelvic peritoneum can be interposed between the bladder and the cervical stump by suturing the peritoneum to the anterior wall of the cervical stump below the area of closure of the stump. The round ligaments can then be brought together in the midline to peritonealize the cervical stump. Conversely, if the bowel has been damaged and not the bladder, the anterior or bladder peritoneum can be brought well over the cervical stump and sutured to the back wall of the cervix preventing the damaged bowel from adhering to the cervical stump. This technique of interposing the peritoneum can also be used in the total hysterectomy but there is much less clear area to work with.

Prior to freeing up adherent adnexae, the surgeon can reduce bleeding effectively by opening the lateral pelvic peritoneum, isolating and ligating the ovarian vessels.

When total hysterectomy must be done, such as in the cases of carcinoma-in-situ of the cervix or endometrial carcinoma, a few precautions will reduce fistula formation.

1. Careful identification of vesicovaginal fascia and taking it downward about 1 cm at a time with the knife handle, ligating the paracervical tissue with each progressive step. Keep the bladder well away from sutures used for closing the vaginal cuff.

2. After the uterine vessels are ligated, incise the posterior peritoneum and meticulously develop the rectovaginal septum 1 cm at a time.

3. When bladder or rectal margins are not clear, instillation of diluted ethylene blue through the Foley catheter or the rectal tube will facilitate identification of margins and also will immediately demonstrate if a hole has been produced.

4. Ureteral injuries can be identified by I.V. administration of 10 cc Indigo Caramine.

Conclusions

Of the 18 vesicovaginal fistulas seven could have been avoided had a subtotal rather than a total hysterectomy been done. Ten fistulas occurred when there were no predisposing factors and these should have been avoidable by more carefully developing the vesicovaginal plane. The one ureterovaginal fistula and the two cases that required colostomy could have been avoided if the operator had decided early in the case that a subtotal hysterectomy was sufficient to cure the primary gynecological problem.

High risk cases include severe endometriosis and chronic pelvic inflammatory disease in which there is loss of safe vesicovaginal or rectovaginal planes, ruptured tubo-ovarian abscess, stage III and IV ovarian carcinoma, extreme obesity, serious medical problems, previous cesarean sections with densely adherent bladder, and placenta accreta.

The major disadvantage of leaving a cervix is the possibility of carcinoma developing in later years. With pre-operative Papanicoulaou smears and colposcopy and post-operative annual examinations there is almost no risk that a patient will die of carcinoma of the cervical stump. The minor disadvantages as sighted by Ranney[3] are severe cervicitis, dyspareunia and prolapse. If these problems arise they can be treated successfully by office procedures or by vaginal removal of the cervical stump.

There should be no embarrassment on the part of an expert pelvic surgeon when he or she decides that leaving a benign cervix in place will lead to a better operative result and a healthier patient.

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From the Department of Obstetrics and Gynecology of the University of Louisville School of Medicine and the Departments of Obstetrics and Gynecology of the following Jefferson County Hospitals: Methodist Evangelical, Norton-Children's, Jewish, Louisville General, St. Anthony, Sts. Mary and Elizabeth, Audubon, Suburban, Highland Baptist, and Baptist East.

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An Association Between Ureaplasma Urealyticum and Endomyometritis After Cesarean Section

J. PATRICK LAVERY, M.D., CARRIE CAMPBELL MARCELL, R.N.
AND ROOSEVELT WALKER, M.D.

Seventy-five patients were studied for infectious morbidity following Cesarean section and were all recipients of prophylactic antibiotic therapy. Ureaplasma urealyticum was found to be present in 39% of intraoperative cultures obtained at time of Cesarean section. Eight out of nine of the patients who subsequently developed endomyometritis after Cesarean section were found to harbor ureaplasma urealyticum at time of delivery. This suggests a predisposition to endomyometritis with the presence of U. urealyticum. A significant association was incidently found between those patients who cultured positive for ureaplasma and who developed endometritis despite their inclusion in a prophylactic antibiotic study.

The infectious morbidity which affects the Cesarean section patient is significant, and at times devastating. The risk of endomyometritis is dependent upon multiple known factors.[1] The incidence of this morbid complication may range from 12% to 95%.[2,3]

Trends in antimicrobial usage and the organisms related to significant puerperal morbidity have been reviewed.[4] In discussing the development of antibiotics from the 1930s to the present, the authors note a particularly sharp reduction in infectious morbidity achieved during the 1950s. However, they emphasize that despite newer and more potent agents there has been little change in overall puerperal morbidity since that time. This raises questions and poses challenges to the clinician. One of the recent techniques described to decrease puerperal infections following operative deliveries has been the use of prophylactic antibiotics in the immediate postpartum period. Many investigators have published data on this technique to modify this significant problem faced by an ever increasing number of obstetrical patients.[5,6]

Many organisms have been associated with puerperal infection, but one in particular is receiving more attention in the literature as its identification has become more reliable. Mycoplasma species have been suggested as organisms associated with puerperal infection.[7,8,9] The exact role they play is not yet defined. These are normal environmental organisms and their colonization in the genital tract is not always related to adverse clinical effects.[10] Because these organisms are found in the genital tract of a large percentage of the population, particularly in low social economic populations, most investigators have been reluctant to cast them in a causative relationship to puerperal morbidity. Other authors, however, have suggested that they play a critical role in perinatal mortality and morbidity.[11] The exact role, therefore, of mycoplasma species, including Mycoplasma hominis and Ureaplasma urealyticum (the T-strains), requires further definition.

This paper is a prospective review of patients undergoing Cesarean section for various obstetrical reasons with indication for prophylactic antibiotic treatment by a pre-defined protocol. The findings of that study and the association of U. urealyticum with endomyometritis in this patient population are the subject of this report.

Materials and Methods

The study was a randomized, double blinded study designed to compare the effectiveness of two antibiot-

TABLE 1

INCIDENCE OF ENDOMYOMETRITIS IN STUDY POPULATION

	Total Cases	Cases of Endomyometritis
Mezlocillin	34	3-9%
Cefoxitin	41	6-15%

Table 1: The occurrence of endomyometritis was statistically similar in the populations receiving different prophylactic antibiotics (Chi Square analysis).

ics, Mezlocillin* and Cefoxitin,+ to prevent infectious morbidity in patients undergoing Cesarean section. Three doses of Mezlocillin (4 grams each) and Cefoxitin (2 grams each) were given immediately after the cord was clamped and at four and eight hours after delivery. The drug was obtained from the manufacturer and coded for distribution by pharmacy personnel. The surgeon was not aware of the agent employed.

The patients admitted to the study were those who required a Cesarean section for obstetrical reasons while in labor or after rupture of membranes. None had any major medical problems. Any sign of infection or prescription of antibiotic therapy within 24 hours of entry into the study led to their exclusion. No elective Cesarean sections were included. Patients with an allergy to pencillin or similar compounds were excluded.

Initial cultures of the uterine cavity were obtained at time of Cesarean section for routine bacteriology and for mycoplasma species. The endometrium was swabbed with two cotton-tipped applicators: one was placed in Stuarts Bacterial Transport Media for subsequent culture on Blood agar, Chocolate agar, Thayer Martin plates and THIO glycolate broth; the other was placed in 1 ml of mycoplasma transport media.[12] This specimen was transported on ice to the laboratory and cultured for mycoplasma species within 24 hours of collection, using a technique described by Shepard.[13] Agar plates were streaked with the swab from the inoculated transport media. The plate was sealed, taped and placed in a 37°C incubator under anerobic conditions for a period of two weeks. Plates were examined under a regular microscope on high power for morphology and colonies three times a week and at the end of the two-week period.

Patients were observed for multiple signs of infectious morbidity while in the hospital and all had routine hematologic and biochemical evaluation. Subjects under study were demographically similar and represented the urban population serviced by University Hospital in Louisville. All care was provided by resident house staff with senior staff supervision. Further data is on record.[14]

Endomyometritis was considered present if two temperatures were recorded greater than 38°C in association with uterine tenderness, a maternal white blood cell count greater than 15,000 per cu ml, or malodorous lochia with no other apparent cause of fever. These patients were recultured and treated by agents other than those of the prophylactic protocol.

TABLE 2

DELIVERY MYCOPLASMA CULTURE BREAKDOWN OF POPULATION PROPHYLACTIC ANTIBIOTIC STUDY

Total patients in study		75
Mycoplasma species positive		29
Ureaplasma urealyticum	(26)	
Large colony mycoplasma	(3)	
Mycoplasma species negative		37
No culture obtained		9

Table 2: The incidence of mycoplasma species obtained from the study population. Large colony mycoplasma were M. hominis.

TABLE 3

PREVALENCE OF UREAPLASMA UREALYTICUM AND ENDOMETRITIS

U. urealyticum cultures - all patients	26/66-39%
U. urealyticum - patients with subsequent endomyometritis	8/9-89%
U. urealyticum - patients with no endomyometritis	18/57-32%

Table 3: The incidence of U. urealyticum and endomyotritis is listed. Chi Square analysis is significant between those patients with endomyometritis and U. urealyticum ($P<.005$) and those who did not have endomyometritis. There were no cases of significant infectious morbidity where M. hominis were present.

Results

Infectious morbidity from endomyometritis is listed in Table 1. Patients receiving Mezlocillin had a 9% incidence of endomyometritis. Patients receiving Cefoxitin had a 15% incidence. There was no statistically significant difference between the two groups by Chi Square analysis. Other conditions contributing to infectious morbidity including bronchitis, breast infection, and urinary tract infection, were found not to be different in the two antibiotic groups. This data is on record[14] and is not included in this report.

Table 2 lists the incidence of positive cultures of mycoplasma species, the majority of which was urea-

**Registered Miles Pharmaceuticals - Mezlin*
+Registered Merck Sharp & Dohme - Mefoxin

plasma urealyticum. Nine patients in the prophylactic antibiotic trial did not have mycoplasma cultures performed at the time of Cesarean section.

In Table 3 the incidence of ureaplasma urealyticum and its association with endomyometritis is listed. U. urealyticum was found in 39% of the population who were cultured while undergoing Cesarean section. Of those patients with endomyometritis, 89% were found to have positive cultures for this organism. Thirty-two percent of those patients who did not develop endomyometritis were found to have the organism. The association was significant by Chi Square analysis ($P<.005$) between the groups with and without the subsequent endomyometritis and the presence of U. urealyticum.

Discussion

Mycoplasma species are the smallest free-living organisms. The genital strains of this species include Mycoplasma hominis and Ureaplasma urealyticum. M. hominis, a common vaginal commensal, achieves optimum growth in the vaginal pH of 7.4 and can grow anaerobically. The T-strains of mycoplasma or ureaplasma urealyticum prefer an environment that is more acidic and microaerophilic.[15]

Genital mycoplasma are frequently isolated from the cervix of pregnant women. Indeed, M. hominis is present in 20% to 50% and U. urealyticum is present in 60% to 80% of cervical cultures taken from pregnant women.[16,17] Recent investigators studying the genital mycoplasma species have suggested some association with puerperal infectious morbidity, suggesting even a possible primary causal relationship. Lamey *et al*[18] reported genital mycoplasma isolated from the bloodstream in 12.8% of 125 febrile women postpartum, while none were found in 68 afebrile parturients. It was their contention that mycoplasma probably reached the vasculature from an infected endometrial site and this subsequent mycoplasemia resulted in the febrile state. In this study there was a similar rate of recovery of U. urealyticum as of M. hominis from blood cultures. U. urealyticum was felt to be the cause of postpartum fever in several cases because it was the only organism isolated. In another investigation looking at intraamniotic infection, Blanco et al[19] found a correlation between the presence of M. hominis and postpartum morbidity, but did not find a statistical association with those patients suffering from intraamniotic infection and the presence of U. urealyticum. It was their conclusion, however, that the genital mycoplasmas (here specifically M. hominis), were a significant factor in puerperal morbidity. Other investigators[20] have found that U. urealyticum is associated with perinatal morbidity. This organism has also been associated with substantial local inflammation of the endometrium.[21]

The importance of mycoplasma species as a cause of puerperal morbidity can only be appreciated if appropriate cultures are taken. A recent publication[22] did not as much as take these organisms into consideration when reviewing the clinical significance of culture specimens at time of Cesarean section. This is in contrast to a report from Platt et al[23] discussing postpartum fever on a large maternity service. These authors concluded that mycoplasma species were, in fact, the major cause of postpartum fever in their population. Reports such as those of Dische et al,[24] Shurin et al,[11] and Kundsin et al[20] as well as this present study find U. urealyticum to be a significant factor in puerperal morbidity, albeit its exact role remains unclear.

As the Cesarean section rate rises, ongoing efforts to control infectious morbidity must take place. The use of prophylactic antibiotics for patients at risk for infectious morbidity has proven efficatious. Yet as noted earlier, a significant decline in maternal infectious morbidity has not occurred in recent years despite such techniques and new agents. Awareness of other organisms as potentiating factors in infectious morbidity and attention to appropriate surgical technique would seem to be areas worthy of renewed investigation. It is of interest that in our study the patients responded to antibiotic therapy which generally would not have been adequate to treat U. urealyticum. This raises an interesting question about the nature of the primary influence of these organisms: are they pathogens or potentiating pathogenic commensals? Fuller understanding of the pathophysiology of infectious morbidity will perhaps enlighten us concerning the role these organisms play. Evidence certainly is accumulating to show that U. urealyticum appears to potentiate infectious morbidity problems.

The use of prophylactic antibiotics in this series, Mezlocillin and Cefoxitin, have shown equal efficacy as agents in the management of patients at risk for infectious morbidity related to Cesarean section. The high incidence of U. urealyticum cultured from the population who subsequently developed endomyometritis suggests that this mycoplasma species is possibly a potentiating pathogen in infectious morbidity. The presence of U. urealyticum does appear to influence the

severity of the postpartum course and this relationship raises questions concerning traditional concepts regarding the pathogensis of puerperal infectious morbidity.

Synopsis

Ureaplasma urealyticum was found to be present in a significant number of patients who subsequently developed endomyometritis after Cesarean section in a prophylactic antibiotic study in a low socio-economic population.

Acknowledgement

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From the Department of Obstetrics and Gynecology, University of Louisville School of Medicine, Ambulatory Care Building, 550 S. Jackson Street, Louisville, Kentucky 40292

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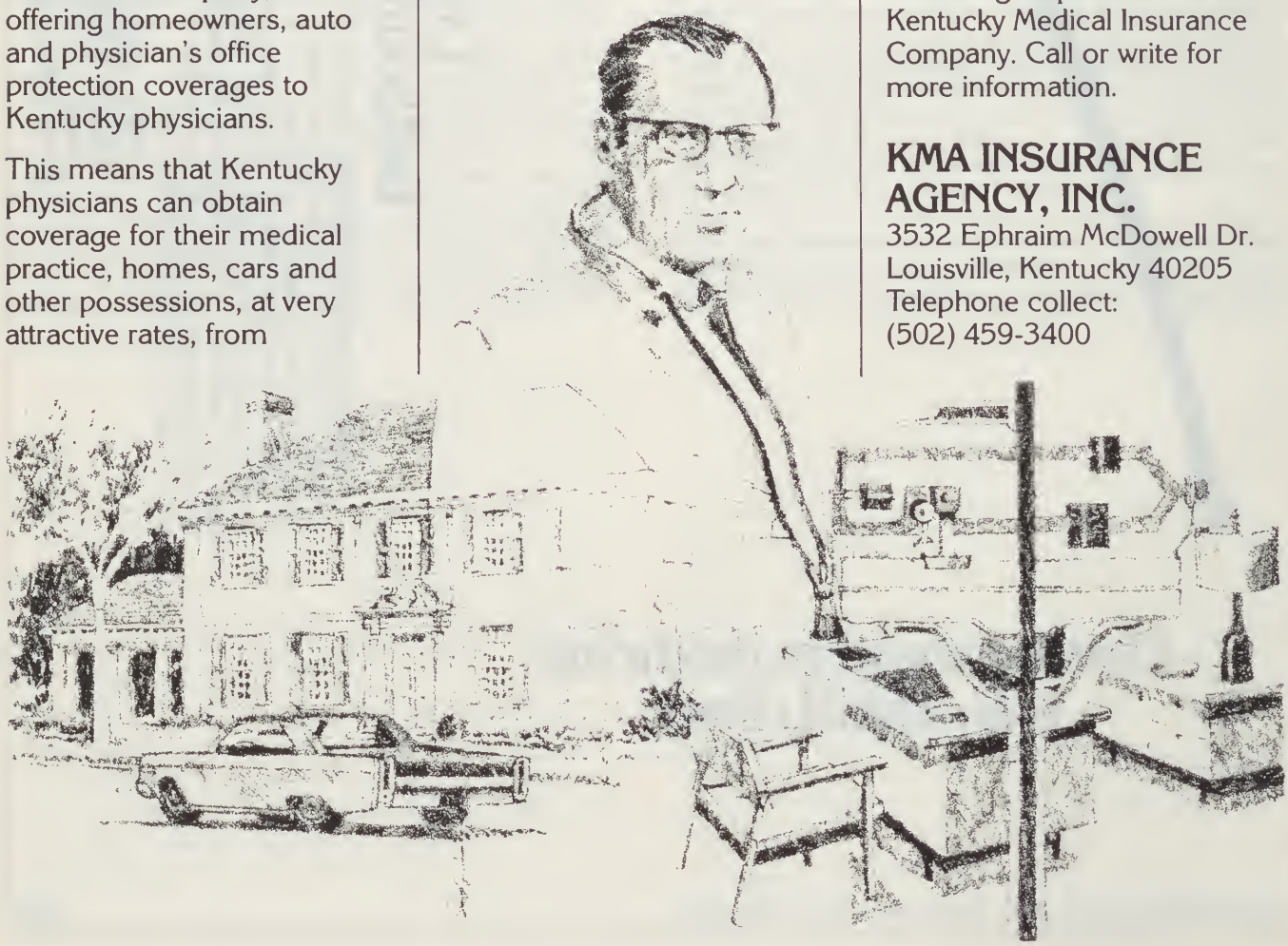
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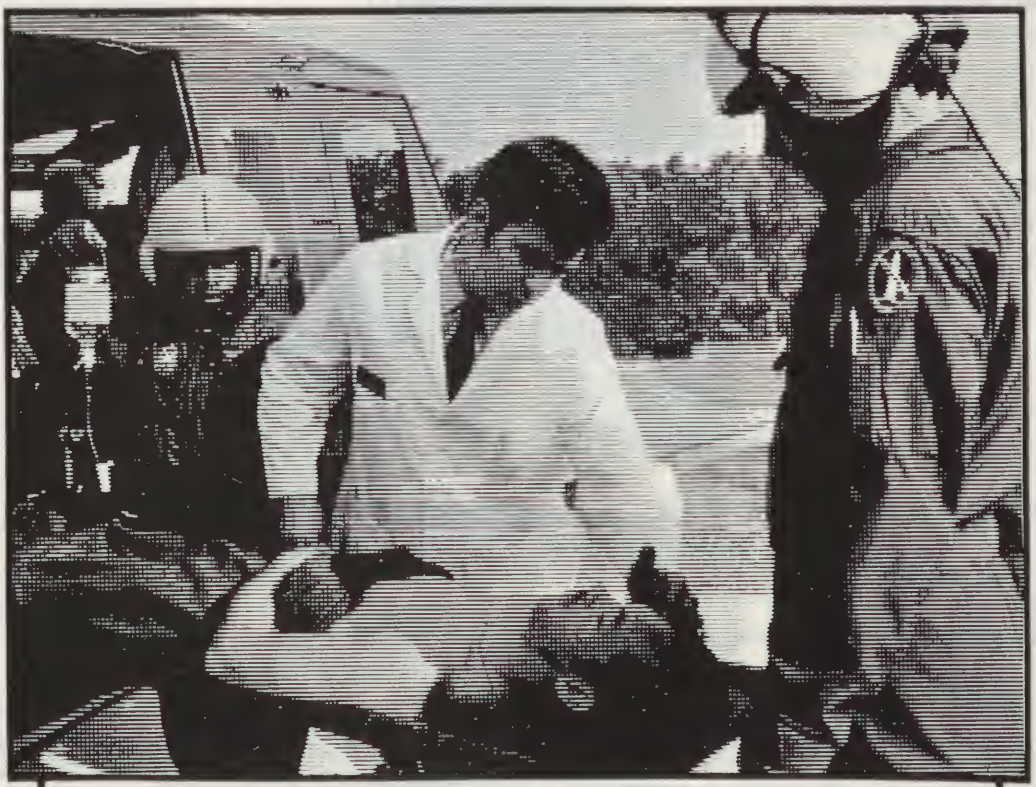
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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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*Benzodiazepines have not been shown to be of benefit in treating the cardiovascular component.

See important information on preceding page.

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LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

To the Editor:

An editorial by G. Randolph Schrodt, M.D., in the February 1985 *Journal of the Kentucky Medical Association* discussed the necessity of limiting the projected surplus of physicians. The editor of the *New England Journal of Medicine* testified on March 25, before a senate subcommittee that the oversupply of physicians (and specialists) could make health care more expensive. A special article on health care in Kentucky in the April 1985 *Journal of the Kentucky Medical Association* discussed the physician use of marketing techniques due to an oversupply in their profession.

Left to their own initiative, there is little reason to expect the two Kentucky medical schools to voluntarily reduce the size of their classes. The University of Kentucky Medical School did bravely start such a reduction but abandoned it when faced with decreased federal capitation grants and the potential loss of political clout when even a merger of the two state medical schools is being considered.

I, therefore, propose that all financial aid to the two Kentucky medical schools whether individually from alumni and friends in medicine or collectively from medical societies and their auxillaries, be conditioned on the immediate and continued significant reduction of their class sizes (perhaps 10-20% per year for two to four years). I also suggest all funds designated as scholarship grants to students be considered loans rather than outright gifts with repayment of interest and principal required.

C. Patrick Beatty, M.D.

To the Editor:

Medical and Biological Effects of Light

New York Academy of Sciences Conference

October 31 – November 2, 1984

Burning questions of light damage and photobiological needs received intense analysis at New York's Barbizon Plaza, October 31 – November 2. Thirty dynamic presentations were each followed by probing questions or other data plus three prearranged overview discussions. The conference was organized by John T. Potts, Jr., M.D., Endocrinologist and Chief, General Medical Services, Massachusetts General Hospital, Michael J. Baum, M.D., Ph.D., Department of Nutrition and Food Sciences, M.I.T., and Richard J. Wurtman, M.D., Ph.D., Laboratory of Neuroendocrin Regulation, M.I.T., Chairman of the NASA Life Sciences Advisory Committee and, for the past five editions, author of the section on the pineal gland in Harrison's Textbook of Medicine. Senior scholars from abroad included Gerard A. Groos, University of Guroningen, The Netherlands, Joseph Herbert, University of Cambridge, Fronz Waldhauscer, M.D., University Children's Hospital, Vienna, and Rutger A. Wever, M.D., The Max-Planck Institute for Psychiatry, West Germany. Fifteen poster exhibits came from major research groups in the U.S., Hamilton, and London, Ontario, and Stockholm, Sweden.

Michael F. Holick, M.D., Ph.D. of the Vitamin D Laboratory at Harvard Medical School crisply delineated the two types of vitamin D and other products generated by ultraviolet radiation between 290 and 315 nm. on the human skin. The thermally labile previtamin D_3 largely formed in the malpighian layer of the epidermis enters general circulation through a lush vascular network of the skin. Though newborn skin is almost transparent to visible and ultraviolet light, both pigmentation and aging reduce previtamin D_3 formation. This is of major importance in decalcification of

bone and pathologic fractures in the elderly. Robert M. Neer, M.D. of the Endocrin Unit, Mallinckrodt Clinical Research Center, Harvard, pointed out the absolute need for sun generated calciferol beyond dietary supplements which are particularly necessary in the elderly. Even the young adult is subject to an average 16 fold difference in total sun dose between summer and winter in New York. D. Michael Davis, M.D., Ph.D., Medical Director of British Petroleum and veteran of 16 years underseas medical research for her Majesty's Royal Submarine Service, quantitated new medical demands placed on submariners by nuclear craft which now remain submerged for three months. Though calcium balances become negative after two months of solar deprivation, there is no change in magnesium absorption after two or three weeks.

Luke Thorington, Light Engineer of Duro-Test Corporation hammered away at the difficulties of precise light quantitations, but tabulated five sets of little known spectrotechnical measurements. He characterizes most U.S. indoor lighting as "twilight equivalent." Programs of energy conservation in the past decade have worsened biologically desirable light levels. Representatives of the FDA Center for Devices and Radiologic Health reviewed their inhouse U.V. research and the 28-year history of blue light therapy for infantile hyperbilirubinemia. Ultraviolet sensitivity of five free amino acids, particularly tryptophan, is of concern during plasma irradiation. Animal and human data here are neither consistent or conclusive. Anthony F. McDonagh, of the UC San Francisco Department of Medicine, pointed out our indebtedness to nursing sister Ward who made the original 1956 observation of improved skin color in jaundiced newborns taken out of doors. This visible light therapy produces rapid isomerization, but actually converts only about 20% of the biliruben in circulation. The only known side effects are potential retinal damage, avoided by the use of eyepads on all infants being treated. Betsy M. Sutherland, of Brookhaven National Laboratories, analyzed skin responses to UV by both punch and bubble biopsy. Though tanning UVA and UVB (290-380 nm) produce cyclobutyl pyrimidine dimers in surface layers of human skin, UVB tan protects two or three times more than UVA tan. UVA tans with approximately equal protection against its own induced dimer formation. Just as with water and with castor oil, UV can be protective and reparative on one hand and disasterous on the other.

Richard L. Edelson, M.D., Dermatologist of the Clinical Research Center, Columbia University reviewed high potentials for UVA and psoralen therapy of T cell disorders such as pemphigus vulgaris, and other abnormalities mediated by T lymphocytes; thin film, extracorporeal plasma exposure is used. This avenue of pharmacology is a target of Extracorporeal, Inc. an arm of Johnson and Johnson. Andrija Kornhauser, Ph.D. and his group from the FDA Division of Toxocology demonstrated in vivo protective effects of oral B-carotene as a quencher of psoralen photooxidation, but without protection against UVB induced erythema. This opens the door for possible additional lens protection. Warwick L. Morison, M.D., a decade ago from Australia, now from the NCI Frederick Research Facility, pointed out the role of UV below 320 nm in generating suppressor T lymphocytes to reduce contact hypersensitivity at both systemic and local levels. This exemplifies the concurrent helpful and harmful effects of UV irradiation to the immune system. David H. Sliney, M.S. of the Laser Division of the Army Environmental Hygiene Agency re-emphasized the wide variations of the human eye as a target for solar exposure. He emphasized the often underestimated variable of grass, sand, or other ground reflection. Acute effects from daily exposure are heavily curbed by facial geometry, convexity of the corneal surface and constant movement of the globes.

The paired suprachiasmatic nuclei of the hypothalamus and the retino-hypothalamic tracts have received extensive histochemical analyses by Robert Y. Moore, M.D., Ph.D. of Stony Brook. With the nearby pineal gland they are variously characterized as endogenous central nervous system pacemakers which entrain diurnal and seasonal rhythms. Indirect photic information reaches the central nervous system through the lateral geniculate nucleus and the secondary intergeniculate leaflet of neural cells. Groos and Meijer reported specific light and dark effects on serum melatonin levels in mammals. Different quantitation techniques and wide species differences have confounded many analysis of light vs. dark effects on melatonin secretion. All conceded that it sharply drops through the five stages of puberty and slowly falls even more in later life.

Steven M. Reppert, M.D. of the Childrens Service, Mass. General Hospital, has documented maternal entrainment of circadian cycles in the fetal rat. Though improved melatonin assays clearly support pineal indole inhibition of puberty, localizing retinal signs ap-

parently do not exist, action spectra of light are far from complete understanding and therapeutic programs are limited by poor basic understanding. Russell J. Reiter from the Department of Cellular and Structural Biology, University of Texas at San Antonio continues his major research role identifying up to seven log units difference in minimal light needed to affect melatonin levels in different animals.

Relationships to depressed illness, manic depressive illness, and "seasonal affective disorders" are being probed by Norman E. Rosenthal, M.D. of the N.I.M.H. and Daniel F. Kriple, M.D. of the San Diego VA Medical Center in small inpatient and outpatient groups. Multiple factors in these illnesses make control groups essentially impossible. There is no characteristic pattern of serum melatonin in these patients though values tend to be low.

Dr. Rutger A. Wever of the Max-Planck Institute, West Germany showed extensive studies of circadian rhythms in normal volunteers indicating that a few people operate on a 25-hour cycle and about every four weeks require a catch-up or adjustment day. Human cycles can be experimentally shortened to about 23½ hours or lengthened to 27 hours before most subjects tend to break from such imposed light/dark rhythms. High light environments of three to five thousand lux have some effectivity in shortening recovery time from jet lag.

One of the most senior U.S. scholars in ultraviolet light and skin responses, Frederick Urbach, M.D., Chairman of Dermatology at Temple University, underscored the extreme difficulty of accurate photometrics. Though skin types are classified in five to eight variations, Dr. Urbach takes as his reference point the average erythema evoking dose on young adult Caucasian skin free from previous ultraviolet conditioning or tanning. Recognizing large numbers of genetic, individual, pigmentary, and idiosyncratic variables, he pointed out the NIOSH minimum exposure dosages are far lower than "standard" erythema dosages. Most optical plastics cut off in the range of any wavelength under 390 nm. Window glass is considerably more variable due to differing sand and iron contents. In concern of skin damaging or possible cataractogenic dosages of artificial or indoor light, Dr. Urbach pointed out that he has never seen sunburn from a fluorescent desk lamp or indoor lighting. Though UV is emitted by such sources, the thinnest layer of dust creates a major barrier. He relates about two-thirds of basal cell disease to ultraviolet and one-third as unknown. He pointed out low proportions of incident ultraviolet reaching the lids, inner canthus, submental and anterior neck areas. By contrast, the back of the neck and the malar eminences receive severalfold more UV energy. He feels there is essentially no capability at this time to predict long-range effects of indoor lighting.

Leonard C. Harber, M.D., Columbia University, Department of Dermatology, elaborated on rare solar urticaria and photoallergic dermatitis. The latter has shown up in males particularly following widespread use of aftershaving lotions containing Musk Ambrette which appeared to be photosensitizing in eight patients. Infrared wavelengths may also cause heat urticaria. Though internal lighting emits a minute amount of UVA, there is a lethal potential of commercial tanning salons for true solar urticaria patients. UVA in tanning salons may approximate twice that of the sun through a clear North American sky at summer noon.

H. Richard Blackwell, Ph.D. of Ohio State University noted that no single light function fully expresses eye function. The CIE Color Rending Index evaluates visual efficiency for specific chromatic tasks but excludes the largely achromatic, dynamic functions. He prefers a spectral effectiveness factor (SEF) which he evaluated by 300,000 measurements on five trained observers. He predicts an SEF factor 26% greater with halide than with high pressure sodium light and translated this to 11.7% increase in worker productivity.

A penetrating summary was given by Israel Abramov, Ph.D. of Brooklyn College and by the organizing chairman Dr. Wurtman. Beneficial effects of light were evidenced by data from diverse areas such as increased intestinal absorption of calcium, enhanced growth of human fibroblasts in culture, therapy of psoriasis and viteligo, reduction of uremic puritis, reduction of neonatal hyperbilirubinemia, conversion of seven hydrocholesterol in the skin to previtamin D_3 compounds, enhancement or adaptation of circadian rhythms, reduction in duration of jet lag, protection by UVB tanning against subsequent erythema and dimer induction, treatment of depressed illnesses, effective extracorporeal irradiation by ultraviolet A in T cell disorders such as pemphigus vulgaris, and visible light suppression of contact hypersensitivity. A complete proceedings but without the question and answer session will be published.

New York Academy of Science established in 1817, operates through 23 sections and has 45,000 members,

16,000 of whom reside outside of the U.S. Eighty-four nations and all states of the Union are represented in the membership. Headquarters are at the old Woolworth residence, 2 East 63rd Street, New York, New York 10021.

Arthur H. Keeney, M.D.
Professor of Ophthalmology
University of Louisville School of Medicine

To the Editor:

In response to several inquiries directed to the offices of the Physicians Health Plan of Kentucky and several of the plan's Board of Directors we would like to offer for the consideration of KMA members our rationale and motivation for electing to employ an experienced management firm to administer our mental health and drug dependency benefits.

It should be understood that a health maintenance organization cannot provide unlimited care to all segments of the population and expect to compete effectively with other health care delivery systems for membership. The Physicians Health Plan of Kentucky (PHPK), as is true with other HMOs, will impose controls, limits, and restrictions on all specialties that are participating.

With regard to mental health and drug dependency, PHPK provides care on a "crisis intervention" basis rather than on a more traditional long term chronic care basis. Therefore, those electing to choose our plan over another offered to them by their employer would not find our benefits appealing if they or their dependents had a known need for long term chronic care in this benefit area. We do not expect our plan to appeal to everyone.

Also there is ample information available indicating that the mental health/drug abuse benefit area is the most difficult to control and has been a major factor in contributing to the failure or unsatisfactory performance of health maintenance organizations in the past. Therefore, we decided that it was important that we carefully manage the benefits in this area.

The Board of Directors and the CEO of the Plan met on several occasions with respected members of the psychiatric community. We considered a proposal by a local psychiatrist to utilize a variety of professional services his practice was organizing in Louisville. We explored a possible alliance with the administration of Our Lady of Peace and the management company representing it. And we considered a closed clinic in a major downtown hospital.

We met with the Metropolitan Clinic of Counseling (MCC), a mental health/drug abuse management company with nine years of operating experience and responsibility for over 300,000 HMO enrollees. This company staffs its offices initially with a locally hired professional, a secretary, and a part-time psychiatrist also locally recruited. They refer the cases they receive from participating plan physicians to the appropriate community resources. In the case of a need for psychiatric services the referral would always be to community psychiatrists. Neither PHPK nor MCC have any intention of bringing in outsiders to staff the office or to provide the services needed.

It was strongly felt by the Board that the MCC format promised more case referrals to the Louisville psychiatric community than any of the alternatives would. There will be a Psychiatric Liaison Committee which will work closely with MCC to review cases and audit their practices. This committee will consist of an MCC administrator, the MCC Medical Director (a part-time psychiatrist), one or more Board members, and a local psychiatrist representing the Physicians Health Plan. We feel strongly that we will be able to monitor the activities of the psychiatric designee effectively.

We fully realize that the benefits we are offering are not satisfactory to a number of the psychiatrists in Louisville. They are the best benefits we feel we can provide and still market our benefit package for a competitive premium to Louisville employers and they do satisfy all state and federal benefit requirements.

As a Board we realize that there are legitimate differences of opinion regarding the level of mental health benefits we can offer. We do believe we have selected a system which will enable us to manage this volatile benefit and still utilize the community psychiatrists to the fullest extent possible in providing quality care to the full extent of our benefits. We hope you can appreciate some of the issues we have been addressing in this matter in an effort to arrive at a responsible position for the plan and those who have supported it. If we can clarify this further, we welcome your contacting us.

Alvin M. Churney, M.D., Chairman of the Board
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INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed.

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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Androgenic Alopecia: Update

Wilma F. Bergfeld, M.D.

This presentation will consider what is new in the evaluation and treatment of women with male-pattern alopecia, androgenic alopecia. Detailed information will be given about ovarian, adrenal and mixed endocrine dysfunctions which have been shown to induce alopecia. In addition, interest will be given to hair follicle sensitivity to testosterone metabolates.

KMA Annual Meeting
Sept. 30-Oct.3, 1985
Galt House, Louisville, KY

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The Evaluation of the Infertile Male and Treatment of Men With Idiopathic Oligospermia

Stuart S. Howards, M.D.

The evaluation of the infertile male should begin with a complete history and physical. Routine laboratory evaluation includes urinalysis and semen analyses. In selected individuals a urine culture, serum FSH, LH and testosterone, testis biopsy, immunologic studies, sperm hamster-egg interaction tests are indicated. These examinations, however, should not be done routinely, indications will be discussed in detail. Many men who present with infertility have idiopathic oligospermia; that is, there is no apparent cause for their suboptimal semen quality. There is no proven therapy for these men. There are several drugs for which there is suggestive evidence of efficacy. These include Clomiphene, HCG, Teslac, Tamoxifen. The results of treatment with these compounds will be summarized and recommendations for treating men with idiopathic oligospermia will be made.

KMA Annual Meeting
Sept. 30-Oct. 3, 1985
Galt House, Louisville, KY

David P. Moore, M.D.
announces the opening of his office for
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with special interest in
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J-5491 June 1985

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Once-daily INDERAL LA (propranolol HCl) for smooth blood pressure control without the potassium problems of diuretics

Once-daily INDERAL LA (propranolol HCl) avoids the risk of diuretic-induced ECG abnormalities due to hypokalemia.[1,2] In addition, INDERAL LA preserves potassium balance without additive agents or supplements while providing simple, well-tolerated therapy with broad cardiovascular benefits.

Once-daily INDERAL LA for the cardiovascular benefits of the world's leading beta blocker

Simply start with 80 mg once daily. Dosage may be increased to 120 mg to 160 mg once daily as needed to achieve additional control.

Like conventional INDERAL tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, heart block greater than first degree, and bronchial asthma.

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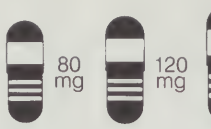


80 mg 120 mg 160 mg

The appearance of these capsules is a registered trademark of Ayerst Laboratories.

Please see brief summary of prescribing information on the next page for further details.

Once-daily For beta-1/beta-2 blockade INDERAL® LA (PROPRANOLOL HCl) LONG ACTING CAPSULES



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BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)*
INDERAL® LA brand of propranolol hydrochloride **(Long Acting Capsules)**
DESCRIPTION. Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.
CLINICAL PHARMACOLOGY. INDERAL is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by INDERAL, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

INDERAL LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with INDERAL LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of INDERAL tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially

INDERAL LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to INDERAL LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, INDERAL LA has been therapeutically equivalent to the same mg dose of conventional INDERAL as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. INDERAL LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of INDERAL has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. INDERAL has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, INDERAL also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.
INDICATIONS AND USAGE. Hypertension: INDERAL LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. INDERAL LA is not indicated in the management of hypertensive emergencies.

Angina Pectoris Due to Coronary Atherosclerosis: INDERAL LA is indicated for the long-term management of patients with angina pectoris.

Migraine: INDERAL LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

Hypertrophic Subaortic Stenosis: INDERAL LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. INDERAL LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.
CONTRAINDICATIONS. INDERAL is contraindicated in 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with INDERAL.
WARNINGS. CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or INDERAL should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of INDERAL therapy. Therefore, when discontinuance of INDERAL is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If INDERAL therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute INDERAL therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.
PRECAUTIONS. *General:* Propranolol should be used with caution in patients with impaired hepatic or renal function. INDERAL (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that INDERAL may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

Clinical Laboratory Tests: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if INDERAL is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

Pregnancy: Pregnancy Category C. INDERAL has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. INDERAL should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: INDERAL is excreted in human milk. Caution should be exercised when INDERAL is administered to a nursing woman.

Pediatric Use: Safety and effectiveness in children have not been established.
ADVERSE REACTIONS. Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: bradycardia, congestive heart failure; intensification of AV block, hypotension; paresthesia of hands; thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: bronchospasm.

Hematologic: agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.
DOSAGE AND ADMINISTRATION. INDERAL LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from INDERAL tablets to INDERAL LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. INDERAL LA should not be considered a simple mg for mg substitute for INDERAL. INDERAL LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

HYPERTENSION—*Dosage must be individualized.* The usual initial dosage is 80 mg INDERAL LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

ANGINA PECTORIS—*Dosage must be individualized.* Starting with 80 mg INDERAL LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

MIGRAINE—*Dosage must be individualized.* The initial oral dose is 80 mg INDERAL LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, INDERAL LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg INDERAL LA once daily.
PEDIATRIC DOSAGE—At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

REFERENCES

1. Holland OB, Nixon JV, Kuhnert L: Diuretic-induced ventricular ectopic activity. *Am J Med* 1981;70:762-768. **2.** Holme I, Helgeland A, Hjermann I, et al: Treatment of mild hypertension with diuretics. The importance of ECG abnormalities in the Oslo study and in MRFIT. *JAMA* 1984;251:1298-1299.

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KMA Board of Trustees Holds Spring Meeting

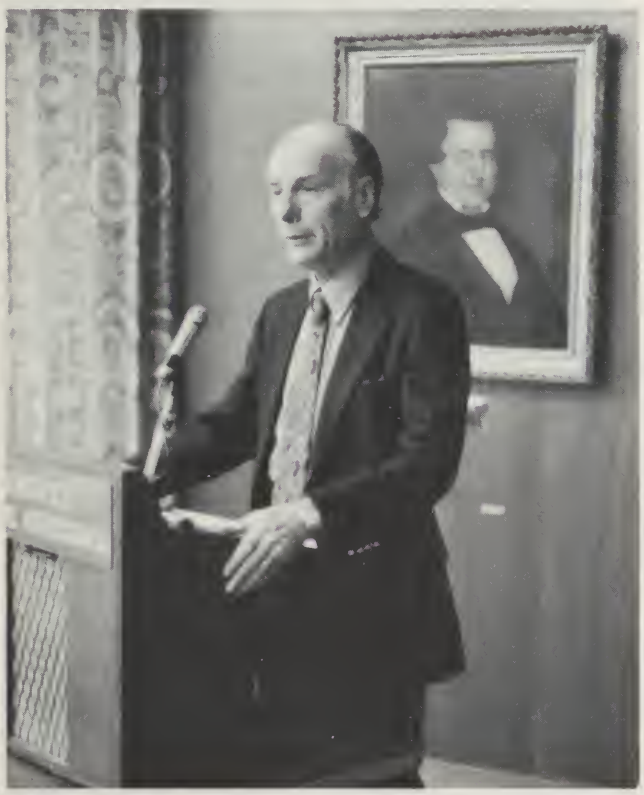
The KMA Board of Trustees met April 17 and 18, 1985. Chaired by Nelson B. Rue, M.D., the agenda included reports from the KMA officers, KMA Auxiliary President and the Board of Medical Licensure.

In his President's report, Charles C. Smith, Jr., M.D., told the Board the results of a survey, conducted by the AMA, of Physicians under the age of 40. The results showed that the majority believed the main function of a medical association should be representation and promotion of the physician image to the public. Legislative representation was believed to be the next most important role of an association.

The next Board of Trustees meeting is scheduled for August 7 and 8, 1985.



Nelson B. Rue, M.D. (head of table) KMA Chairman of the Board.



David L. Stewart, M.D., Chairman of the Committee on Impaired Physicians.



Charles C. Smith, Jr., M.D., KMA President

Digest of Proceedings Meeting of the KMA Board of Trustees April 17-18, 1985

The KMA Board of Trustees met in regular session on April 17-18, 1985, in Louisville.

The President, President of the Auxiliary, and Secretary-Treasurer gave reports as well as representatives of the Kentucky Board of Medical Licensure, Kentucky Peer Review Organization, and Cabinet for Human Resources.

The Board referred a request for Legal Trust Fund assistance to the Executive Committee for action, and accepted a dividend check of $10,000 from the KMA Insurance Agency to KMA Physicians Services, Inc. (holding company).

The Board members heard a lengthy report on the activities of Kentucky Medical Management & Computer Operations, Inc., and directed that the company be sold or merged with another existing company. The manager of KMA Physicians Financial Services, a Federal Credit Union, reported that the assets of the credit union had surpassed the six million dollar mark. The Board members reviewed and adopted the 1985-86 KMA Budget, and approved guidelines for the operation of the Benevolent Fund as drafted by the Committee on Impaired Physicians.

Nominees were finalized for Governor-appointed councils as well as for the KMIC and KEMPAC Boards of Directors. The Board authorized expenditure of $21,000 for analysis of data generated by the Kentucky Physicians Care Program since January 2, 1985. The Board also heard reports from the Hospital Committee, Membership Committee, Committee on Community and Rural Health, Committee on Medical Insurance and Prepayment Plans, and the Ad Hoc Committee on Professional Liability Insurance.

Plans were approved for a dinner-dance to be held during the 1985 Annual Meeting to benefit the McDowell House, and final plans for the 1985 Washington Dinner were reviewed. It was noted that Leah Dickstein, M.D., Louisville, had been named as a Consultant to the *Journal* Editorial Board.

The Board Chairman brought a request from the Registrar of Vital Statistics to the Board's attention encouraging prompt signature of death certificates, and an update was given on activity following KMIC's development of guidelines for family practitioners performing obstetrics.

The next meeting of the Board was scheduled for August 7-8, 1985, in Louisville.

P.R.N.
More Marketing Strategies

The Extras That Count

In the past it was not really necessary for a physician to have a business plan. A physician practiced medicine and a "good practice" meant the good practice of medicine. Such a philosophy has not changed, but a "good practice" now must be supplemented by additional communication and adaptive skills necessary in a changing medical environment.

According to *Medical Economics*, the services you provide patients beyond their medical care may well give you an added edge as competition grows sharper. Patients view these "extras" as an expression of concern for them, thus building patient loyalty.

The use of the Patient Information Booklet as a communication tool has previously been discussed in this column. This brochure not only can save the physician from unnecessary phone calls, but also demonstrates personal concern for the patient. Providing other informational material, such as pamphlets on nutrition, exercise or symptoms and treatment of common illnesses, also reinforces the physician's treatment of the patient.

The Patient Newsletter

Another marketing tool which is gaining in popularity among health care providers is the patient newsletter. A recent physician survey indicated that one out of five medical practices is now sending a newsletter to patients. The average newsletter is four pages and comes out quarterly. One of the chief reasons given for *not* having a newsletter is that it "takes too much time to write and edit."

Although the most effective and least expensive method for publishing a newsletter is to have it written directly by you and your staff, there are several reputable firms that produce newsletters for physicians to distribute to their patients. If you would like the names of these companies, contact Diane Maxey at the KMA Office.

If you are already publishing a newsletter or are thinking about doing so in the future, you might wish to keep some of the following suggestions in mind.

What To Include

You're the best judge of what's appropriate for your practice and patients, but some topics which are generally used in patient newsletters are:

1. Health information on topical issues related to your specialty
2. Seasonal health tips.
3. Information on staff members, their responsibilities, particular items of interest that create a sense of "family" to the patient.
4. Question and answer columns. Seek input from your patients.
5. Office procedures and policies. Explain in terms of the patient's self-interest. For example, when discussing the appointment system and the necessity of being on time, tell patients that their cooperation means less waiting time for them.
6. CME activities you're involved in. If you're going to be out of town for a period of time, let them know what your procedure will be for coverage.
7. Ask your staff for their suggestions. They can often pinpoint problem areas for you.

How To Put It Together

As with your Patient Information Booklet, your newsletter reflects your practice. To produce an inviting, readable publication you need clarity of writing and design. You might find it helpful to start saving copies of newsletters and publications that come across your desk. Is one easier to read? Does the color of paper or use of photos grab your attention? Make a note of things that you would like to incorporate in your newsletter. You may prefer to work with a reputable printer to help you decide on format and method of reproduction.

Write in a friendly and conversational tone, using the "you" form of address in your copy rather than "the patient." You may be able to delegate the actual writing of the newsletter to a staff or family member. A title for your newsletter might even come from a patient contest or something that identifies your practice to the community.

If You're Still Undecided

A patient newsletter can have many advantages, some tangible and some intangible:

1. Increases visibility of the practice to active patients.
2. Increases patient awareness of practice services.
3. Builds patient loyalty.
4. Maintains continuity of contact with the patient and serves as a reminder for follow-up visits.
5. Provides preventive health information to the patient.

Through good communications you can establish an improved physician-patient relationship and enjoy the benefits—a smoother running practice; a more effective, courteous staff; and patients who are pleased, not only with their medical care, but your thoughtfulness and management abilities as well.

A good point to remember though is that all the brochures and newsletters you can publish are not going to get your patients to come back if your attitude or that of your staff is not warm or caring. Establishing a good rapport with your patients is that "extra" that leads to a "good practice."

"P.R.N. - Practice Relations Notes" is edited by the KMA Member Services Department. Please direct any inquiries or specific problems to them at 3532 Ephraim McDowell Drive, Louisville, KY 40205.

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

In Memoriam

CONDIT BREWER VAN ARSDALL, JR., M.D.
Harrodsburg
1914-1984

Condit B. Van Arsdall, Jr., died December 17, 1984. Doctor Van Arsdall was a 1937 graduate of Duke University School of Medicine. He was a life member of KMA.

CARLISLE V. DODSON, M.D.
Russellville
1921-1985

Carlisle V. Dodson, M.D., a general practitioner, died January 9, 1985. Doctor Dodson was a 1943 graduate of the University of Louisville School of Medicine and had been a member of KMA since 1952.

WALTER LEE O'NAN, M.D.
Louisville
1907-1985

Walter Lee O'Nan, M.D., a practicing physician for 53 years, died January 5, 1985. Doctor O'Nan was founder and first Chief of Staff of the hospital in Henderson and was a co-founder of the Henderson Clinic. He was a diplomate of the American Academy of Family Practice. A 1930 graduate of St. Louis University School of Medicine, Doctor O'Nan was a member and past Chairman of the Board of the KMA.

JOSEPH E. MAURER, M.D.
Louisville
1918-1985

Joseph Edward Maurer, M.D., a retired urologist, died January 20, 1985. Doctor Maurer was a 1943 graduate of Harvard Medical School and had been a member of KMA since 1952.

MICHAEL L. FURCOLOW, M.D.
Lexington
1907-1985

Michael L. Furcolow, M.D. died January 20, 1985. A 1934 graduate of Yale Medical School, Doctor Furcolow had been a member of the KMA since 1964.

PETER H. JONES, M.D.
Lexington
1917-1985

Peter H. Jones, M.D., a neurologist and psychiatrist, died January 25, 1985. A 1943 graduate of the University of London Medical School, Doctor Jones had been a member of KMA since 1965.

PAUL J. ROSS, SR., M.D.
Louisville
1922-1985

Paul J. Ross, Sr., M.D., died February 12, 1985. He was a former member of the Louisville Surgical Society, the American Medical Association and had been a member of KMA since 1954.

MAURICE BOWLING, M.D.
Louisville
1920-1985

Maurice Bowling, M.D., a general practitioner, died February 14, 1985. Doctor Bowling was a 1952 graduate of the University of Louisville School of Medicine and had been a member of KMA since 1953.

ELWOOD ESHAM, M.D.
Vanceburg
1905-1985

Elwood Esham, M.D., a general practitioner, died March 3, 1985. A 1939 graduate of the University of Louisville School of Medicine, Doctor Esham was a life member of the KMA.

DAVID MORROW COX, M.D.
Louisville
1898-1985

David Morrow Cox, M.D., a retired obstetrician and gynecologist, died March 8, 1985. He was a 1924 graduate of the University of Louisville School of Medicine and was past president of the Jefferson County Medical Society. Doctor Cox was a past President and life member of the KMA.

EUGENE A. CASTLE, M.D.
Madisonville
1918-1985

Eugene A. Castle, M.D., an obstetrician and gynecologist, died April 6, 1985. A 1953 graduate of the University of Oklahoma College of Medicine, Doctor Castle had been a member of KMA since 1958.

FLOYD BEAUMONT HAY, M.D.
Albany
1905-1985

Floyd B. Hay, M.D., a retired general practitioner, died April 3, 1985. Doctor Hay was a 1939 graduate of the University of Tennessee College of Medicine and had been a member of KMA since 1952.

LEE PALMER, M.D.
Louisville
1897-1985

Lee Palmer, a retired pediatrician, died April 10, 1985. A 1923 graduate of the University of Louisville School of Medicine, Doctor Palmer was a life member of the KMA.

Postgraduate Page

JULY

18-20 7th Annual Bowman Gray Mountain Meeting, Grove Park Inn, Asheville, North Carolina. Contact: Division of Continuing Medical Education, Vanderbilt University School of Medicine, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

AUGUST

15-18 Ninth Annual Association of Academic Health Centers Continuing Education Conference, Sheraton Music City Hotel, McGavock Pike, Nashville, Tennessee. Contact: Vanderbilt University School of Medicine, Division of Continuing Medical Education, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

SEPTEMBER

5-7 Southeastern Occupational Health Conference, Birmingham, Alabama. "Health and Safety Needs of a Changing Work Force." Contact: Mary Snow, The University of Alabama at Birmingham School of Public Health, University Station, Birmingham, AL 35294, (205) 934-3676.

9-13 Internal Medicine Review, Vanderbilt University School of Medicine and the American College of Physicians; Co-sponsors. Program Chairman: John Oates, M.D. Contact: Division of Continuing Medical Education, 615-322-4030.

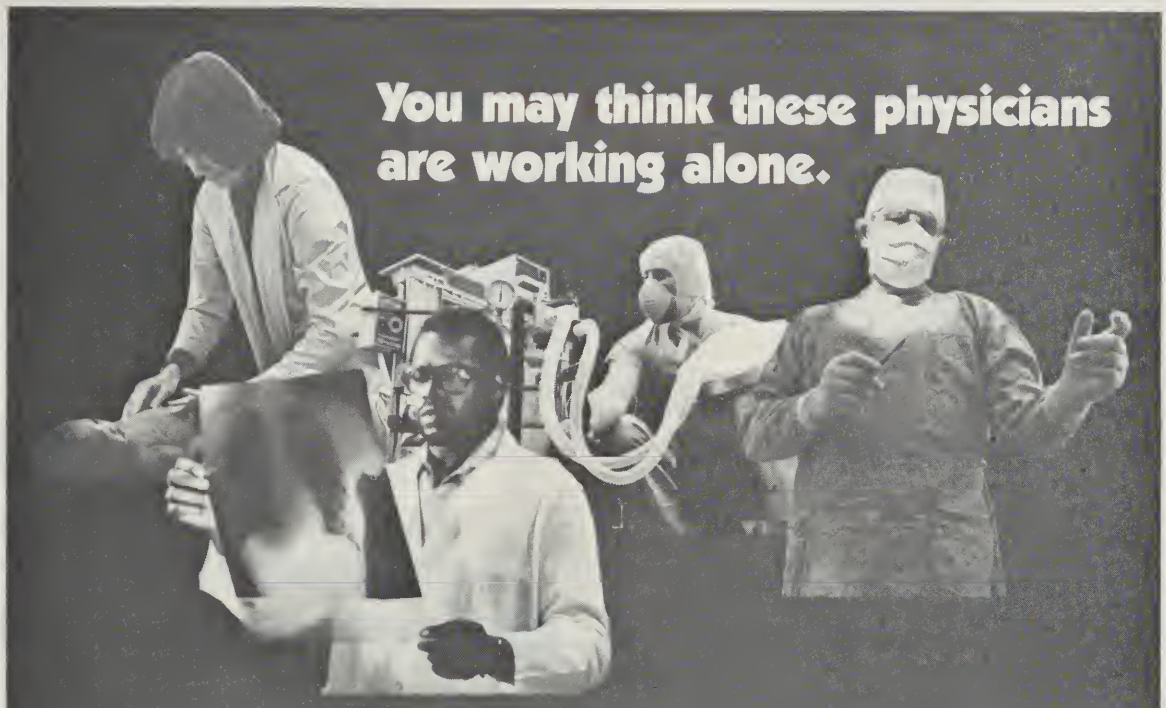
11-14 Fifteenth Annual Peripheral Vascular Disease Symposium "Critical Issues & Controversies in Vascular Surgery." The Hyatt on Capitol Square, Columbus, Ohio. Contact: Shelly J. Hershberger, Saint Anthony Medical Center, 1492 E. Broad St.; Suite 1100, Columbus, Ohio 43205, (614) 251-3680.

OCTOBER

23-27 Pulmonary Diseases/Critical Care Medicine, Sandestin Beach Hilton Hotel, Destin, Florida. Contact: Division of Continuing Medical Education, Vanderbilt University School of Medicine, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

NOVEMBER

5-8 American Academy of Clinical Anesthesiologists Meeting, Atlantic City Resorts International Hotel, Atlantic City, New Jersey. Contact: Donald G. Catron, M.D., AACA, P.O. Box 11691, Knoxville, TN 37939, (615) 588-6279.



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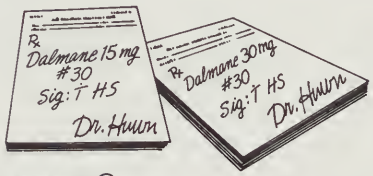
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Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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PRESIDENT'S PAGE



As I sat through the excellent KMA conference in Owensboro in March, 1985, I began to wonder if things are really as bad as the speakers would have us believe. The title of the symposium was "Symbosis, Joint Survival in a Competitive Medical Environment." The speakers were excellent—many were national authorities in their field, and the topics were timely. The theme was: adapt to a changing medical environment or perish. Many unpleasant and threatening trends in medicine were explored in detail and prophecies of doom were made.

On the drive home I thought that many of the conclusions and predictions were all too true. The problems of multiple methods of health care delivery, the cost of care crises, the medical liability monster, government intrusion into medicine, and third party payor conflicts make a pretty depressing menu.

As we battle with this imposing list of problems it may be helpful to look at the other side of the ledger. There we find a profession which has produced the finest health care the world has ever known. A physician has the great opportunity to really help people who come to him in need. That is no small thing in a world of artificially created needs and "make-work" situations where many take from society and return very little.

We hear much of ungrateful and litiginous patients and tend to forget the many loyal and grateful ones.

Inflation, fee freezes, increased expenses, and ridiculous liability premiums have created real economic problems, but most physicians have done very well financially. The economic problems are real and must be dealt with, but many concerns about fees and income may be based on past levels which were not representative or realistic.

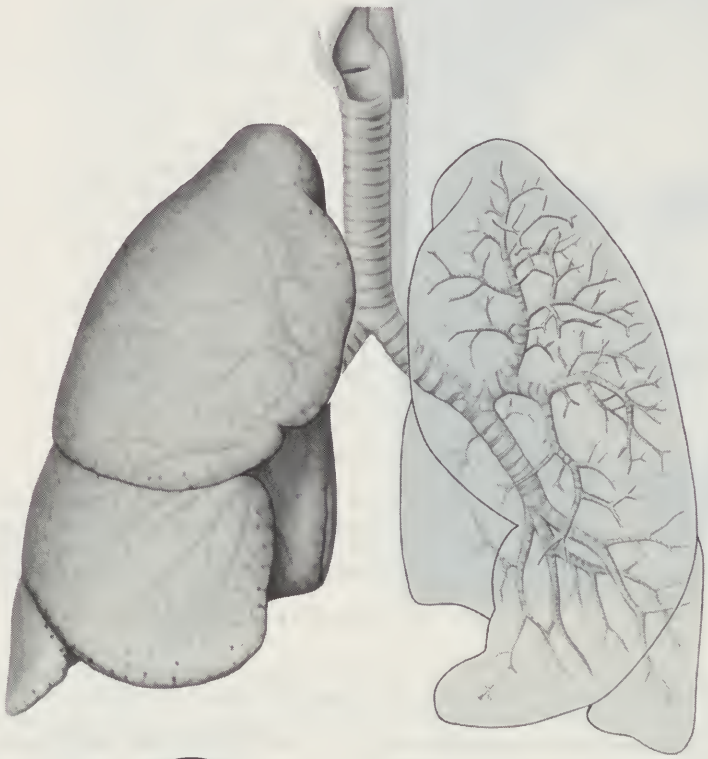
I hear many of my colleagues say that "medicine is no fun anymore," or "I would not do it again." I have to wonder how they would feel if they had pursued another vocation where the problems and frustrations probably would have been greater and the rewards and satisfaction much less.

I would be the last to minimize the size of the problems we in medicine face. I would be the first to say that our only hope in dealing with these problems is an effective, honest, strong, and united profession working through local societies, KMA and AMA.

While you are wading through HMO's, IPA's, PPO's, fee freezes, liability premiums, Frankfort, and Washington, remember it IS worth all the time and effort and sweat and frustrations to preserve and improve the medical heritage that is ours.

Richard F. Hench, M.D.
KMA Vice President

Consider the causative organisms...



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offers effectiveness against the major causes of bacterial bronchitis

H. influenzae, *H. influenzae*, *S. pneumoniae*, *S. pyogenes*
(ampicillin-susceptible) (ampicillin-resistant)

Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — *Pregnancy Category B* — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

Note: Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Eli Lilly Industries, Inc.
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400441

Hyperbaric Oxygen Therapy As Treatment For Carbon Monoxide Poisoning

WILLIAM E. ACKERMAN, III, M.D.

Clinical laboratory results may indicate normal arterial oxygen levels, despite the existence of carbon monoxide (CO) poisoning. Carboxyhemoglobin (CO-Hb) serum concentration is poorly correlated with clinical symptoms when blood tests for carbon monoxide have been delayed (following discovery of the victim, ambulance transport, etc.). Undetectable amounts of CO may remain in the tissues, posing a threat to the patient even in the absence of detectable blood CO-Hb levels. This can cause a missed diagnosis with severe consequences. Even though the best guide to the severity of CO poisoning is the patient's alertness and mental status, suspected CO poisoned patients should be closely monitored for 72 hours (in the hospital). There is potential for cerebral edema and residual neuropsychiatric effects secondary to cerebral hypoxia due to CO poisoning. The faster and more efficient the removal of CO, the better the prognosis. The half-life of CO elimination can be decreased from 240 minutes (breathing room air), to 40 minutes by administering 100% oxygen. Hyperbaric medicine may decrease this half-life to less than 30 minutes. Hyperbaric medicine should be employed in all patients with suspected cases of possible severe CO poisoning regardless of the time delay between exposure and presentation to the emergency room. The University of Kentucky A.B. Chandler Medical Center in Lexington has a hyperbaric chamber available as an invaluable service to the state's population.

Carbon monoxide poisoning continues to be a major cause of accidental morbidity and mortality. Carbon monoxide is a colorless and odorless gas that is heavier than ambient air and is the most abundant pollutant in the lower atmosphere. It is produced by the incomplete combustion of organic substances.

The sources of carbon monoxide poisoning are varied and include: fire, automobile exhaust, improperly maintained heating systems, nonventilated charcoal fires, and improperly vented industrial furnaces.[1,2,3] The automobile is the greatest source of carbon monoxide production. Some solvents that are used in household and industrial aerosols may be converted to carbon monoxide in the body.[4,5]

Historically, reports of the physiologic effects of carbon monoxide date back to 1850 when Claude Bernard first described the hypoxic effects of carboxyhemoglobin (CO-Hb).[6] In 1912, Haldane showed that carbon monoxide binds reversibly to hemoglobin.[7] The formation of the CO-Hb complex decreases hemoglobin saturation with oxygen which ultimately results in cellular hypoxia. In 1945, it was reported by Roughton and Root that the uptake of carbon monoxide is inversely proportional to the plasma partial pressure of oxygen.[8]

Successful diagnosis and management of carbon monoxide poisoning depends on early recognition. The diagnosis of carbon monoxide poisoning is made by having a high index of suspicion verified by careful history taking and by direct oximetry measurement of the plasma CO-Hb level. The classic cherry red skin coloration is not usually present in patients with CO-Hb levels less than 40% and may not be present at all even in severe cases. Cyanosis secondary to respiratory depression is more common. The following two case reports illustrate the fact that no laboratory test will accurately predict the overall prognosis of the patient

TABLE 1

PHYSIOLOGICAL RESPONSES TO CARBON MONOXIDE

CO-Hb content (%)*	Notes
5-9%	(smokers') exercise threshold for induction
> 20	headache, nausea, vomitting, generalized weakness
> 40	CO intoxication considered severe visual problems, loss of manual dexterity
> 45	(oxygen dissociation curve shifted to the left; decreases O_2 released to tissues)
> 50	coma, convulsions
> 60	death (secondary to depression of cardiorespiratory system)

* Warning: If clinical tests for carboxyhemoglobin (CO-Hb) concentrations have been delayed, then % serum CO-Hb levels are poorly correlated with clinical signs and symptoms.

who has sustained carbon monoxide insult. Therefore, all patients who have had significant carbon monoxide exposure should undergo hyperbaric oxygen therapy with minimal delay.

Case Reports

Case No. 1: A 51-year-old female was brought to the emergency room from the site of a home fire. The patient was obtunded but arousable, had a CO-Hb level of 22% and had ECG evidence of ST segment depression on admission. The patient's arterial blood gases on 100% oxygen breathing were as follows: pH 7.42, PCO_2 19, PO_2 230, and a calculated saturation of 98%. No cyanosis or cherry red skin coloration was noted. Because the patient was unconscious when found by the EMS and because she had ECG changes, hyperbaric oxygen therapy was initiated. However, the patient developed malignant cardiac arrythmias which progressed to asystole after 20 minutes of hyperbaric oxygen therapy and from which she could not be resuscitated.

Case No. 2: A 17-year-old female was found unconscious at a fire at the patient's home and brought to the emergency room. No cyanosis or cherry red color was noted. The patient was unconscious, normotensive, and exhibited tachycardia. Her ABG's on 100% oxygen were as follows: pH 7.33, PCO_2 25, PO_2 331 with a calculated oxygen saturation of 99% level. The patient's CO-Hb level was 47%. Seven minutes after initiating hyperbaric oxygen therapy (3 ATM) the patient became alert and oriented. The patient was admitted and was discharged two days after hyperbaric oxygen therapy. A three week follow-up revealed no change in neurologic status.

Discussion

With CO-Hb levels less than 5-9%, very few symptoms are apparent (Table 1). In fact, heavy smokers are reported to have a median CO-Hb level of 5-9%.[9] However, CO-Hb levels less than 10% may lower the exercise and stress threshold for induction of angina in patients with underlying coronary artery disease.[10] These patients may show ECG evidence of ST segment changes. At CO-Hb concentrations greater than 20%, headaches, nausea, vomiting, generalized weakness, visual problems and loss of manual dexterity are apparent. At levels greater than 50%, coma and convulsions have been reported. CO-Hb levels greater than 60% may result in death secondary to depression of cardiac and respiratory function. Carbon monoxide intoxication is considered severe when blood CO-Hb levels exceed 40%. Levels greater than 50% may result in irreversible damage to the central nervous system if the patient is not treated promptly.[11] When CO-Hb levels are greater than 45% the oxygen dissociation curve is shifted to the left which interferes with oxygen release at the tissue level. Carbon monoxide also interferes with the cytochrome oxidase and cytochrome P450 enzyme systems which interferes with the cellular utilization of oxygen.[13]

Arterial blood gases may suggest carbon monoxide intoxication when a **low** oxyhemoglobin saturation is present together with a **normal** arterial oxygen partial pressure. The oxygen saturation is low because carbon monoxide binds to hemoglobin with an affinity 200-400 times greater then oxygen and displaces oxygen from the hemoglobin molecule. The arterial carbon dioxide tension may very depending on the presence or absence of metabolic acidosis. Hypocarbia reflects compensatory hyperventilation secondary to acidosis.

Unfortunately CO-Hb levels correlate poorly with clinical signs and symptoms if these diagnostic tests have been delayed. After a significant delay, for example following ambulance transport, carbon monoxide may not be detectable in blood analysis. These patients may remain clinically depressed because undetectable amounts of carbon monoxide remain in tissues or a residual tissue hypoxic state exists. The poor correlation between clinical signs and symptoms of carbon monoxide poisoning and CO-Hb levels is variable enough to cause a missed diagnosis and inappropriate medical management in these patients.[14] The best indicator of the severity of carbon monoxide poisoning is the patient's alertness and mental status.

The rationale of the treatment of carbon monoxide poisoning is virtually unchanged since Haldane's original studies. Treatment consists of administration of the highest possible inspired oxygen concentration while attempting to maintain an adequate minute ventilation.

The half-life of carbon monoxide elimination in a patient breathing room air is 240 minutes. With a patient breathing 100% oxygen, this half-life is decreased to 40 minutes (6-fold). The high arterial oxygen tension achieved with the use of HBO may further decrease this half-life to less than 30 minutes. The objective of using a high partial pressure of oxygen is to accelerate the removal of carbon monoxide from hemoglobin and tissues. Hyperbaric oxygen therapy at 3 ATM for 90 minutes may furthermore be beneficial in reducing the cerebral edema that may exist secondary to cerebral anoxia caused by carbon monoxide.[11]

Central nervous system damage caused by acute carbon monoxide poisoning is similar to that caused by other severe hypoxic ischemic insults. Because of the potential for cerebral edema and residual neuropsychiatric effects secondary to cerebral hypoxia, any unconscious patient with a history of suspected carbon monoxide poisoning should be treated immediately with hyperbaric oxygen therapy.

To maintain a high FIO_2, if the patient is conscious, it is recommended that a non-rebreathing mask be used until the patient can be transferred to a facility with a hyperbaric chamber. If the patient is unconscious, intubation is mandatory with ventilatory support using 100% oxygen before transfer to a hyperbaric medicine facility. All patients must have an intravenous catheter to permit cardiopulmonary resuscitation and correction of metabolic acidosis with an appropriate pharmacologic agent. If a significant intrapulmonary shunt exists, continuous positive airway pressure may prove to be beneficial in improving arterial-alveolar oxygen tension differences.[11]

If hyperbaric oxygen therapy is available at a nearby hospital, the patient should be transferred to that facility while continuing oxygen therapy during transport. Because the high oxygen tension provided by hyperbaric oxygen therapy causes cerebral vessel vasoconstriction, it may reduce intracranial pressure by 50%.[11] This should be kept in mind when cerebral edema has resulted or is suspected after carbon monoxide inhalation. Patients who have sustained significant carbon monoxide poisoning exhibited by unconsciousness should be admitted to the hospital and be closely monitored for 72 hours.

Residual effects of carbon monoxide poisoning may be delayed up to three weeks after the initial insult, as was reported by Plum, et al, in 1962.[15] Patients who have been seriously poisoned may develop postanoxic encephalopathy one-three weeks after the initial insult.[16] Hyperbaric medicine therapy may lower the incidence of these side effects.[17] Hyperbaric oxygen therapy is an important entity in the overall prognosis of all moderately to severely carbon monoxide poisoned patients and that emergency hyperbaric therapy should be administered to these patients at the closest hyperbaric medicine facility with minimal delay. Hyperbaric medicine should be employed in all patients with suspected cases of possible severe carbon monoxide poisoning regardless of the time delay between exposure and presentation to the emergency department.

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William E. Ackerman, III, M.D., Assistant Professor, Department of Anesthesiology, Albert B. Chandler Medical Center, University of Kentucky, Lexington, Kentucky 40536-0084.

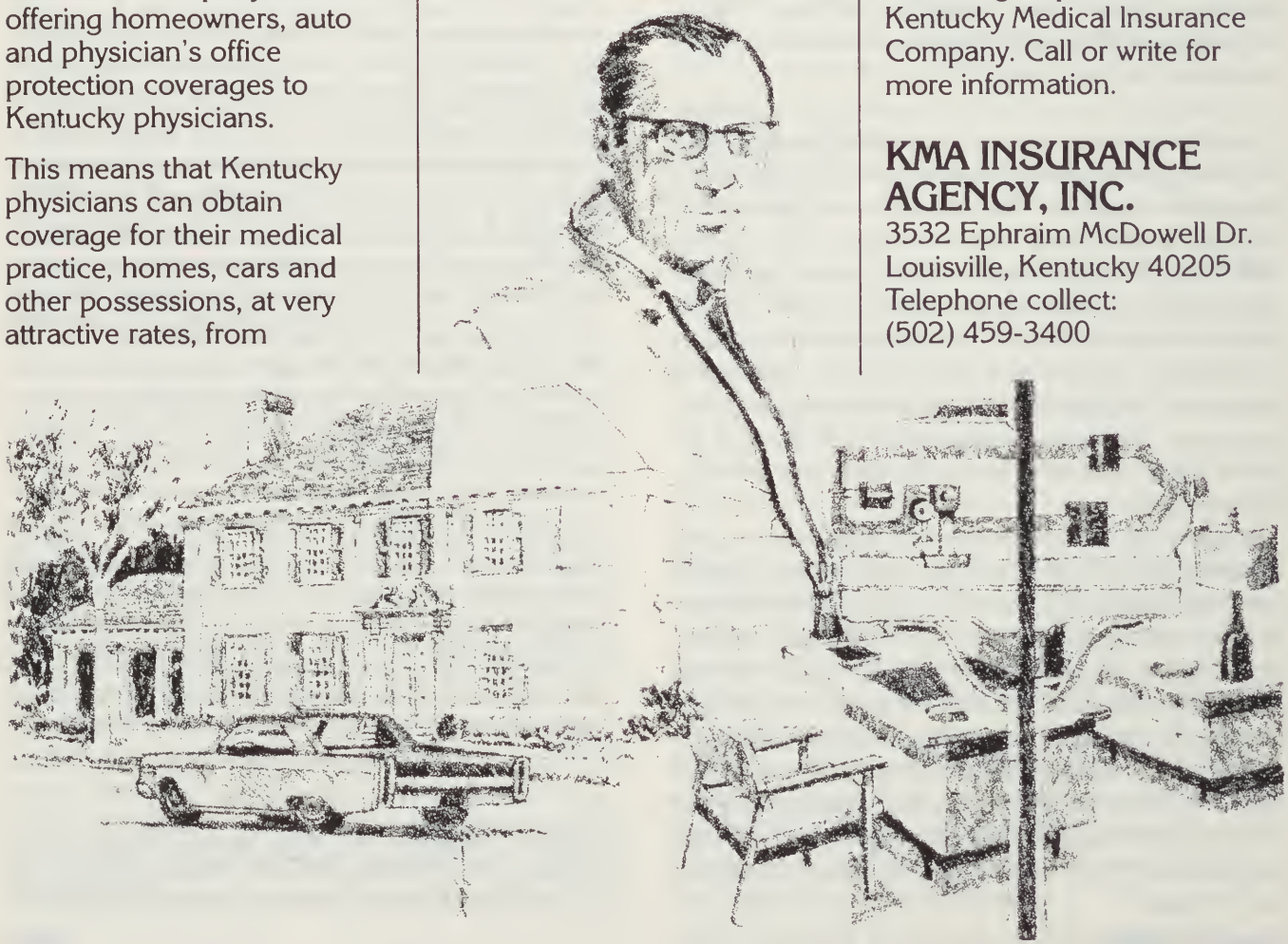
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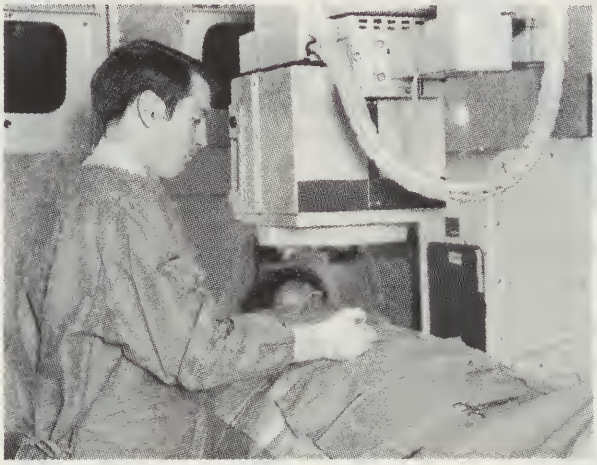
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EDITORIAL

Father's Day

This lament achieves expression on Father's Day, 1985, explaining its publication remote from the event. But should not everyday be the day of those we love and who love us?

At 88 years, this indomitable optimistic, loving, Christian doctor is determined to be depressed, and his family and all who love him are impotent to influence the tail of his life with any happiness and contentment. During all those years he spent his days and nights in concern, love, sacrifice for his patients. He healed them, comforted them, relieved them, consoled them, gave his strength to their loved ones, attended them with the loving patience that does not emanate from the pacemaker, the respirator or the CT scanner. He remembered them, he understood them, he visited his powerful empathy and persuasion on them giving them the strength and sense of improving health that a digitalis, Tagamet, and Valium cannot do alone.

Having left his practice he has lost his patients, and no one could have predicted the devastating, depressing loneliness this has visited on him. His former refuges have lost their impelling flavor. The country boy attends his garden as a chore. The golfer sits out the game. The children, on whom he lavished so much love and such wisdom as they could absorb, cannot comfort him. The verse and the prose which strengthened, pleased and never satiated him have gone limp and pallid. The automobile that thrust him into his brilliant and satisfying world is gone. The stable full of wood to illuminate the words on the long winter nights remains stacked. The green, wide trees he planted during my long, pail-carrying childhood swing no hammock, give no comfort.

Who could have guessed that Sam Overstreet would ever be consumed by such a banal evil as retirement? How can his wife, children, grandchildren and great grandchildren lovingly present him with final contentment, the reward we all anticipate after the battle is complete? How can we bestow on him a small return of the love and comfort he spread to so many?

A. Evan Overstreet, M.D.

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Auxiliary



As the time rapidly approaches for the Annual Meeting of the Kentucky Medical Association and the Auxiliary's Fall Board Meeting, I extend a warm welcome to all spouses of KMA members and invite you to actively participate in the informative seminars and entertainment that is scheduled.

There will be a hospitality suite, with a beautiful view of downtown Louisville. Members as well as nonmembers, are invited to stop by and visit with their friends around the state.

Our current auxiliary membership totals 1,453. There is a potential for approximately 4,000 auxiliary members in Kentucky. I would like to encourage every spouse to join. AKMA membership dues are just $8.00, with $1.00 going to the Health Careers Loan Fund. AMAA dues are $15.00. Thus, for a $23.00 annual tax deductible contribution, you can become a member of the two organizations. My goal for this 1985-86 year is to have one half of our eligible spouses become members.

Auxiliary members are constantly contributing their time in many community organizations, and as a result, the medical profession is represented in more places than you would realize. Together, as members who have a common interest we can contribute much in our communities in health related areas and truly make the results significant. **Won't You Join Today?**

Jo-Ann Daus
President AKMA

I want to take this opportunity to extend an invitation to everyone to attend the Fall Board of the AKMA. It will be held this year on September 30 and October 1 at the Galt House East in Louisville.

In addition to the meetings, we have planned some exciting seminars and a wonderful luncheon and style show. If you do not attend Fall Board, we hope you will come to the Galt House on Tuesday for lunch, fabulous fall fashions and fascinating seminars.

The *tenative* schedule for Fall Board:

Monday, September 30:

Hospitality Room Open:	8:00 A.M. - 5:00 P.M.
Registration:	10:00 A.M. - 2:00 P.M.
The following Committees will convene:	
Finance, Planning, Membership and Executive:	1:00-5:00

Tuesday, October 1:

Hospitality Room Open:	8:00 A.M. - 9:00 A.M.
Registration:	8:30 A.M. - 11:30 A.M.
Board Meeting:	9:00 A.M. - 11:00 A.M.
Luncheon and Style Show:	12:00 - 2:00 P.M.
Seminars:	2:00 - 5:00 P.M.
Malpractice; Pam Potter	
Your Total Image; Lynn Reece	
Children/Adolescence; **Dr. G. Randolph Schrodt, Jr.**	
KMA/AKMA Reception:	5:30 P.M. - 7:00 P.M.

Wednesday, Oct. 2

Hospitality Room Open:	8:00 A.M. - 12:00

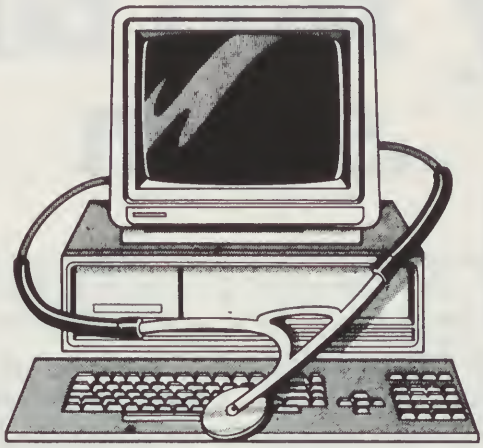
Please watch the "Bluegrass News" September issue for additional information and pre-registration form.

Ann H. Arena
Chairman
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Richard F. Hench, M.D., Nominated for KMA President-Elect



Richard F. Hench, M.D., a Lexington internist, has been nominated by the Fayette County Medical Society for KMA President-Elect.

Doctor Hench served KMA as 10th District Alternate Trustee from 1974-78; 10th District Trustee from 1978-84 and Chairman of the Board from 1981-83. He currently serves as KMA Vice President.

A member of the AMA; the Society of Internal Medicine and the American College of Physicians, Doctor Hench is a 1956 graduate of Temple University School of Medicine. He and his wife, Barbara, reside in Lexington.

Donald C. Barton, M.D., Nominated for KMA Vice President



Donald C. Barton, M.D., a family practitioner from Corbin, has been nominated by the Whitley County Medical Society for KMA Vice President. Doctor Barton graduated from the University of Louisville School of Medicine in 1960. He interned at General Hospital in Louisville and began his practice in Corbin in 1961.

Doctor Barton is a Diplomate of the Board of Family Practice. He has served KMA as Delegate from 1977-79; KMA 15th District Trustee from 1978-84; AMA Alternate Delegate, 1983; Chairman of the Board 1983-84 and AMA Delegate from 1984-85.

Doctor Barton and his wife, Joan, have three daughters and one son.

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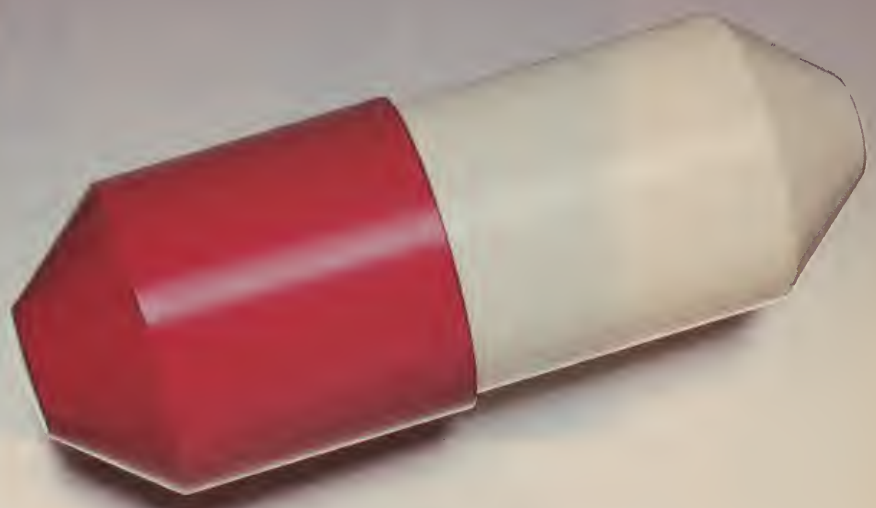
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Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

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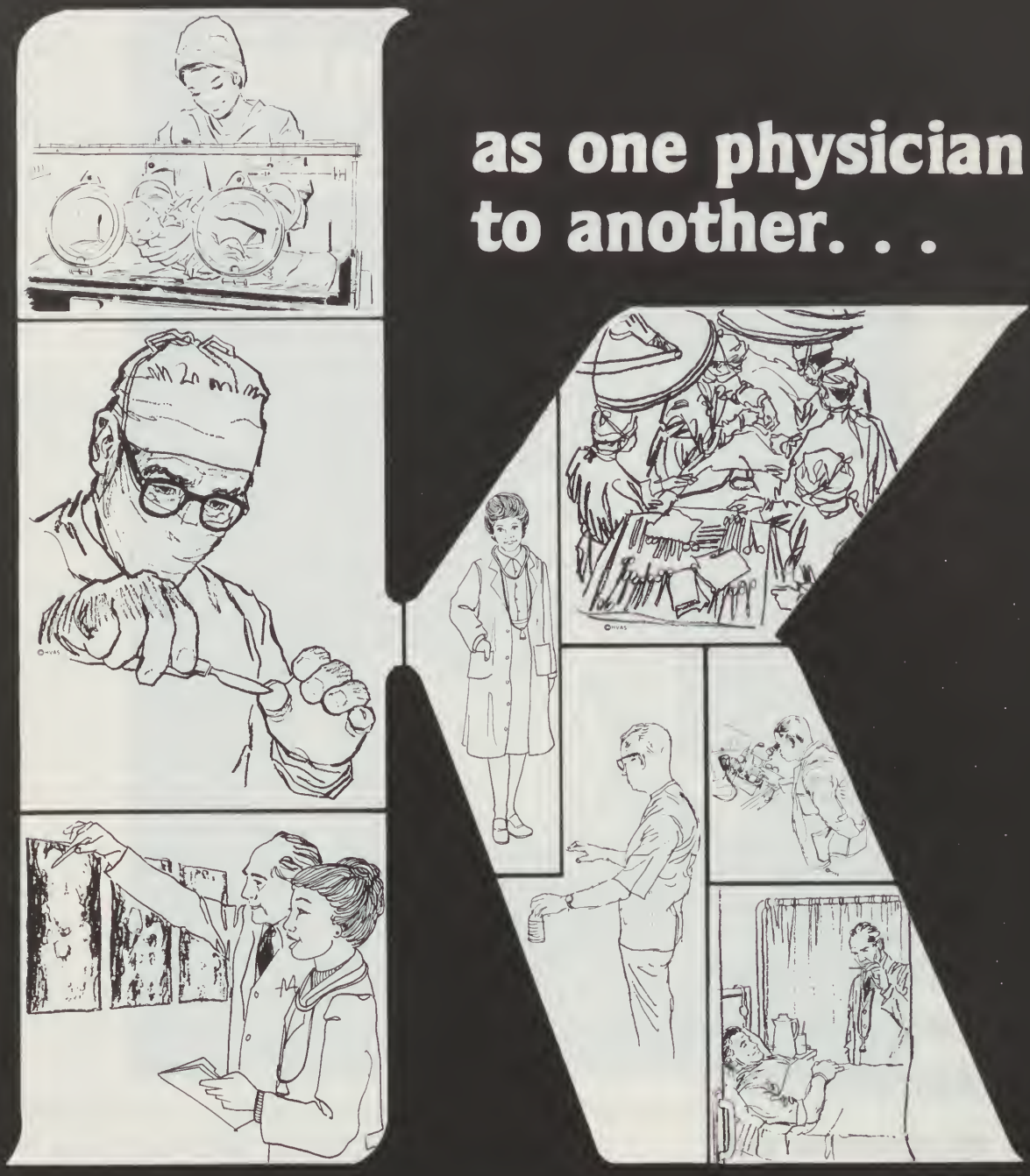
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LETTERS

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of the Journal. Names will be withheld upon request, but anonymous letters will not be accepted.

This is in response to the letter written by representatives of Physicians Health Plan of Kentucky, published in the July issue, *Journal of the Kentucky Medical Association*.

To The Editor:

There would be little reason to bring these issues before the readership of the Kentucky Medical Association except for the need for our State membership to know the directions taken by the "Physicians' Health Plan of Kentucky," originally developed and promoted by the Jefferson County Medical Society. Note, for example, how patients whose psychiatric disorder requires more than 20 visits in a year are airily and erroneously dismissed as long-term chronics by the "Physicians' Health Plan of Kentucky." Once the designation of "long-term" and "chronic" were medical definitions. Now they are redefined by accountants and their concepts have fiscal, but not medical significance.

Then, to pare expenses in an area the unwary purchaser may not notice, the "Physicians' Health Plan of Kentucky" has engaged a Management Company to come in and to hire a Clinical Psychologist or social worker who will decide which "clients" they will care for themselves, which they will refer to other psychologists or other "mental health professionals," or which ones would be referred to a psychiatrist.

We venture there will be expressions of concern even louder than the psychiatrists when, in a desperate and misconceived effort to "compete effectively," these administrators obtain locally hired professionals—midwives, optometrists, podiatrists and medical assistants, to treat as many as they can of your patients, deciding which ones they wish to refer to each other or to you for medical help.

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For more information call Cheri K. McGuire, Assistant Executive Director, at (502) 589-2001, 101 W. Chestnut St., Louisville, Ky 40202.

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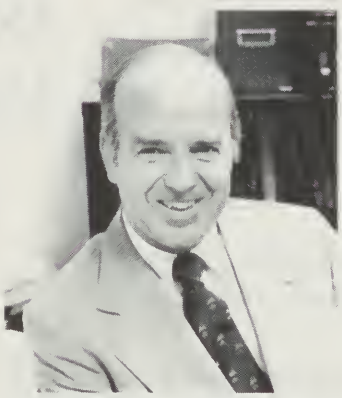
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Thomas L. Heavern, M.D.

PRESIDENT-ELECT
Wally O. Montgomery, M.D.
Louisville

Wally O. Montgomery, M.D., will be installed as President of the Kentucky Medical Association at the President's Luncheon on Wednesday, October 2.

Doctor Montgomery is a practicing general surgeon and a 1962 graduate of the University of Louisville School of Medicine. He is a Fellow of the American College of Surgeons, a Diplomate of the American Board of Surgery, and a member of the McCracken County Medical Society.

Doctor Montgomery currently serves as Alternate Delegate to the AMA and is a past Chairman of the Board of KEMPAC. He is a member of the staff of Western Baptist Hospital where he has served as president of the medical staff.

VICE PRESIDENT
Richard F. Hench, M.D.
Lexington

Richard F. Hench, M.D., is a Lexington internist and a 1956 graduate of Temple University School of Medicine in Philadelphia. He is a member of the staff of Central Baptist Hospital where he served as president of the medical staff. Doctor Hench is a member of the American Board of Internal Medicine and the American College of Physicians. He was 10th District KMA Trustee from 1979 to 1984 and Chairman of the KMA Board of Trustees from 1981 to 1983.

SPEAKER OF THE HOUSE
Peter C. Campbell, Jr., M.D.
Louisville

Doctor Campbell, an ophthalmologist, is Clinical Professor of Ophthalmology at the University of Louisville School of Medicine. He is past President of the Jefferson County Medical Society and a member of the American Academy of Ophthalmology and Otolaryngology, the Kentucky Academy of Eye Physicians and Surgeons, and is past President of the medical staff at Methodist Evangelical Hospital.

VICE SPEAKER OF THE HOUSE
Thomas L. Heavern, M.D.
Highland Heights

Thomas L. Heavern, M.D., is a pediatrician with the Northern Kentucky Pediatric Group, PSC. Doctor Heavern served as KMA Parliamentarian from 1981 to 1983 and Alternate Delegate from 1972-1976. He has also served on the KMA Rules Committee of the House of Delegates, Constitution and Bylaws Committee and as regional Editor for the *Journal of the Kentucky Medical Association*. Doctor Heavern was last year's recipient of KMA's Distinguished Service Award.

SECRETARY-TREASURER
S. Randolph Scheen, M.D.
Louisville

Doctor Scheen was KMA Secretary for eight years before his election as Secretary-Treasurer in 1975. A dermatologist, he is a graduate of the University of Louisville and University of Minnesota medical schools. Doctor Scheen serves the Association as a member of the Budget Committee and Judicial Council. He is a member of the American Academy of Dermatology and the Alumni Foundation of the Mayo Clinic, and is a regular participant on local television and radio programs, answering questions from the public on dermatology.

KMA DELEGATES

Fred C. Rainey, M.D.
Elizabethtown

Doctor Rainey was elected as AMA Delegate in 1974, having previously served as President of KMA, Alternate AMA Delegate, and Board Chairman of KEMPAC. A 1955 graduate of the University of Tennessee College of Medicine, Doctor Rainey is a family physician. He is a member of the AMA Council on Legislation, chairman of the American Medical Political Action Committee, the Kentucky Academy of Family Physicians, and the American Academy of Family Physicians.



Harold D. Haller, Sr., M.D.
Louisville

Elected an AMA Delegate in 1976, Doctor Haller has been active on the Committee on Maternal and Child Health and the Committee on Health Care Costs. Doctor Haller graduated in 1963 from Bowman Gray Medical School, and has been in family practice since then. A charter member of the American Board of Family Practice, Doctor Haller also has served as President of the Kentucky Chapter of the American Academy of Family Physicians.



Donald C. Barton, M.D.
Corbin

Donald C. Barton, M.D., a family practitioner, was elected AMA Delegate in 1983. A past Chairman of the KMA Board of Trustees, Doctor Barton served as KMA Delegate from 1977-79 and AMA Alternate Delegate in 1983. He is past President of the Whitley County Medical Society; past President of the KEMPAC Board, and was 15th District KMA Trustee from 1978-84. Doctor Barton is a 1960 graduate of the University of Louisville School of Medicine.



Russell L. Travis, M.D.
Lexington

Doctor Travis is Associate Clinical Professor of Neurosurgery at the University of Kentucky School of Medicine and attending neurosurgeon at Central Baptist Hospital, Good Samaritan Hospital and Humana Hospital of Lexington. He is past President of the Kentucky Neurosurgical Society and is currently Chairman of the KMA Hotline Operating Committee. Doctor Travis has served as a member of the KMA Board of Trustees, KMA Membership Committee, and is Treasurer of the Kentucky Health Care Access Foundation. He is a 1962 graduate of the University of Louisville School of Medicine.



JOURNAL EDITORS

EDITOR

A. Evan Overstreet, M.D.
Louisville

Doctor Overstreet had served on the Editorial Board for more than six years before becoming Editor of *The Journal* in September 1977. An internist, Doctor Overstreet is a 1955 graduate of the University of Louisville School of Medicine. He is a member of the American Society of Internal Medicine, the American College of Physicians, and the Transylvania Medical Society.

Paul C. Grider, Jr., M.D.
Louisville

Doctor Grider has served as Scientific Editor of *The Journal* since 1975. An internist, Doctor Grider was President of the Louisville Society of Internists from 1976 to 1977 and former President of the medical staff at Methodist Evangelical Hospital. Doctor Grider is a 1958 graduate of the University of Louisville School of Medicine.

Milton F. Miller, M.D.
Louisville

Doctor Miller is Associate Clinical Professor of Medicine at the University of Louisville School of Medicine. An internist, Doctor Miller has served as Assistant Editor of *The Journal* since 1976, has been on the Membership Committee of the Jefferson County Medical Society and is currently President of the medical staff at Methodist Evangelical Hospital. He is a 1954 graduate of the University of Louisville.

G. Randolph Schrodt, M.D.
Louisville

Doctor Schrodt has served as Assistant Editor since 1974. A 1954 graduate of the University of Louisville School of Medicine, Doctor Schrodt is a pathologist, and is Professor and Chairman of the Department of Pathology at the University of Louisville School of Medicine. He is a member of the American Society of Clinical Pathologists and the International Academy of Pathology.

Stephen Z. Smith, M.D.
Louisville

Doctor Smith has served as Assistant Scientific Editor for *The Journal* since 1977. A dermatologist, Doctor Smith is a 1971 graduate of Johns Hopkins University School of Medicine. He is a member of the KMA Claims and Utilization Review Committee, the American Academy of Dermatology and the American Medical Association.

David L. Stewart, M.D.
Louisville

Doctor Stewart, a former Editor of the Jefferson County Medical Society Bulletin, is in his seventh year as Assistant Editor of *The Journal*. A psychiatrist, Doctor Stewart graduated from the University of Louisville in 1946, is a member of the American Psychiatric Association, and is Chairman of the KMA Committee on Impaired Physicians.

McHenry S. Brewer, M.D.
Louisville

Doctor Brewer is serving his second year as Assistant Editor for the *Journal of the Kentucky Medical Association*. A surgeon, Doctor Brewer attended the University of Louisville School of Medicine and was President of the Jefferson County Medical Society in 1972-73. He is a fellow of the American College of Surgeons and a member of the Southern Surgical Association.

New Trustees

Preston P. Nunnelley, M.D.
Lexington

Preston P. Nunnelley, M.D., is serving as Trustee from the 10th District. An obstetrician and gynecologist, he is in practice with William C. Ellis, M.D., and Van R. Jenkins, M.D., in Lexington. Doctor Nunnelley is a member of AMA, the American College of Obstetrics and Gynecology, and the American Fertility Society. He is past President of the Fayette County Medical Society and has served on KMA's Legislative and Nominating Committees and currently serves on the Kentucky Physicians' Care Operating Committee. Doctor Nunnelley received his medical degree in 1970 from the University of Kentucky Albert B. Chandler Medical Center.

William B. Monnig, M.D.
Erlanger

William B. Monnig, M.D., is serving as Trustee from the Eighth District. He is a member of the KMA Hospital Committee and the KMA Medical Insurance and Prepayment Plans Committee. A urologist, Doctor Monnig is a 1969 graduate of the University of Cincinnati College of Medicine.

Emanuel H. Rader, M.D.
Pineville

Emanuel H. Rader, M.D., is a Trustee for the 15th District. He served as KMA 15th Alternate Trustee from 1978-1984. Doctor Rader is a member of the Kentucky Physicians' Care Operating Committee and the KMA Committee on Medicare and other Governmental Medical Programs. A General Practitioner, Doctor Rader is a 1968 graduate of the Univeristy of Kentucky School of Medicine.

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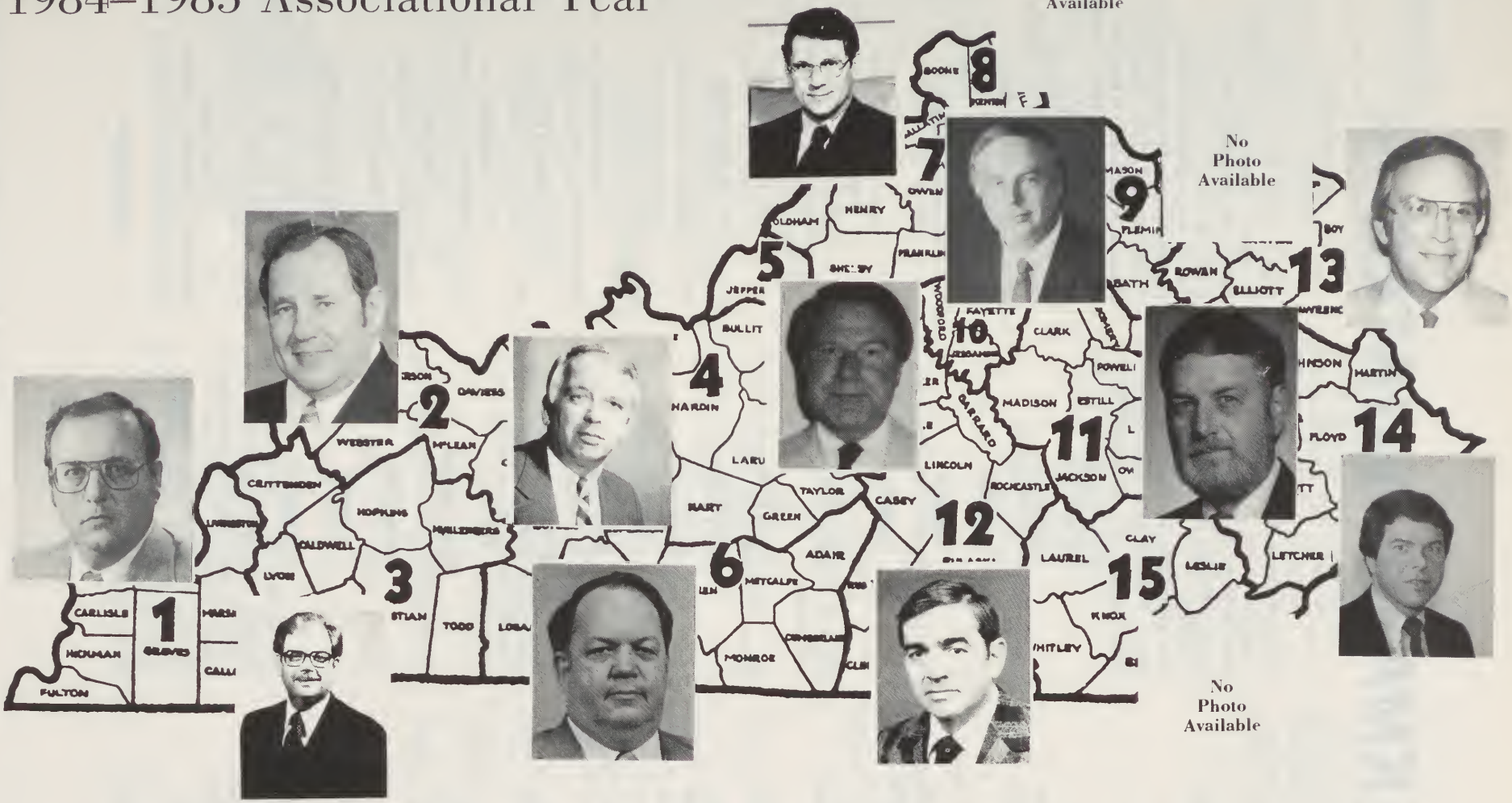
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Continuous service from breakfast through late-night snacks, seven days a week.

English Grill

"Where Excellent Food and Elegance Feel Right at Home"
Serving lunch and dinner, seven days a week.

The Brown

A Hilton Hotel

Fourth and Broadway
583-1234

Reference Committee Activity

Speaker Peter C. Campbell, Jr., M.D., Louisville, will assign all officers' and committees' reports and resolutions to one of six Reference Committees at the first meeting of the KMA House of Delegates at 9:00 a.m., Monday, September 30. A brief session for Reference Committee Chairmen will be held at 12:30 p.m., Monday, in the Corn Island Room, Galt House West. Any KMA member wishing to testify on any resolution or report is urged to be present for the Reference Committee meetings which will be held at 2:00 p.m., Monday, September 30, in the meeting rooms on the third floor of the Galt House West. These open sessions will last at least one hour in order for all who wish to speak to be heard. Following the open hearings, the Committees will go into executive sessions to study the reports, review the testimony, and write their reports to the House.

The Committees' recommendations will be presented at the final meeting of the House, Wednesday evening, October 2, in the Archibald Room, third floor, Galt House West.

As Speaker of the House of Delegates, Doctor Campbell is in the process of finalizing appointments to the six Reference Committees, Credentials Committee, and Tellers Committee.

If your society has not yet submitted the name of your Delegate(s) to the Headquarters Office, you should do so immediately, as only those names recorded in the office can be considered for appointment to one of these important committees.

A complete listing of members who will be serving on the six Reference Committees and the location of the Reference Committee meetings will be published in the September issue of the KMA *Journal*.

Anyone desiring names of Reference Committee members before the September issue is published should contact the Headquarters Office.

Election of Trustees and Alternate Trustees

The House of Delegates will elect five District Trustees and six Alternate Trustees at its second regular meeting, Wednesday, October 2. Nominations will be made by the Delegates from the electing Districts at a meeting following the first meeting of the House on Monday, September 30.

The Nominating Committee will report at the close of the first scientific session on Tuesday, October 1. Further nominations may be made from the floor at the final meeting of the House on Wednesday evening, October 2. All nominations are considered and acted upon by the Delegates at this final meeting.

Districts electing Trustees for three-year terms are: **SECOND DISTRICT** (incumbent, Albert H. Joslin, M.D., Owensboro); **SEVENTH DISTRICT** (incumbent, William P. McElwain, M.D., Lawrenceburg); **NINTH DISTRICT** (incumbent, R. Kendall Brown, M.D., Georgetown); **TENTH DISTRICT** (incumbent, Preston P. Nunnelley, M.D., Lexington); and the **THIRTEENTH DISTRICT** (incumbent, Garner E. Robinson, M.D., Ashland).

Districts electing Alternate Trustees are the same as those electing Trustees. Incumbents are: John W. McClellan, M.D., Henderson, 2nd District; Cecil D. Martin, M.D., Carrollton, 7th District; Robert L. McKenney, M.D., Falmouth, 9th District; Christopher A. Boarman, M.D., Lexington, 10th District; and Jerald M. Ford., M.D., Ashland, 13th District. The 1st District Alternate Trustee position is vacant. Election will be held for a 1-year term.

Trustees and Alternate Trustees in the 2nd, 9th, 10th, and 13th Districts are eligible for re-election, while both the Trustee and Alternate in the 7th District have served two full, consecutive terms and are not eligible for re-election.

Official Call
KMA Annual Meeting

To the officers and members of the component and county medical societies of the Kentucky Medical Association.

Meeting Place

The Annual Meeting of KMA will convene on Tuesday, Wednesday, and Thursday, October 1, 2, and 3, at the Galt House, Louisville. The first General Session will be called to order at 8:50 a.m., Tuesday.

The House of Delegates

The first regular meeting of the House of Delegates will convene at 9:00 a.m., Monday, September 30, in the Cochran Room, Galt House West. The second regular business meeting will begin at 6:00 p.m., Wednesday, October 2, in the Archibald Room, Galt House West.

Registration

The registration desk will be open for Delegates on the third floor of the Galt House West at 8:00 a.m., Monday, September 30, and at 5:00 p.m., Wednesday, October 2. General registration will be held at the registration desk in the Galt House East from 8:00 a.m. until 5:00 p.m., Tuesday and Wednesday, and 8:00 a.m. to 3:30 p.m. on Thursday.

Nominating Committee to Meet Monday, September 30

The KMA Nominating Committee will hold an open meeting at the close of the first meeting of the House of Delegates, Monday, September 30, in the Cochran Room, Galt House West. Any KMA member may confer with the Committee during this meeting.

The report of the Nominating Committee will be posted in the general assembly hall at the conclusion of the first general session, Tuesday morning, October 1.

Nominations may be made from the floor during the second meeting of the House of Delegates, Wednesday evening, October 2, in the Archibald Room. The House will vote on the nominees at the close of this meeting.

Members of the Committee are: G. Randolph Schrodt, M.D., Louisville, Chairman; James H. Brewer, M.D., Shepherdsville; Salem W. George, M.D., Lebanon; Angela Jarvis, M.D., Owensboro; and Carmel Wallace, Jr., M.D., Corbin.

Nominations should be sent before the Annual Meeting to the KMA Headquarters Office, Attention, Nominating Committee.

House to Elect New Officers During Annual Meeting

KMA officers for the 1985-86 Association year will be elected by the House of Delegates at the close of its final meeting, Wednesday evening, October 2. Officers to be elected from the state-at-large are:

Office	Term
President-Elect	One Year
Vice President	One Year
Delegates to the AMA	
*Fred C. Rainey, M.D., Elizabethtown	
*Donald C. Barton, M.D., Corbin	
Alternate Delegates to the AMA	
*Wally O. Montgomery, M.D., Paducah	
*Harold L. Bushey, M.D., Barbourville	

*Incumbent

Annual Meeting Special Features

SCIENTIFIC SESSIONS are scheduled for October 1, 2 and 3, at the Galt House in Louisville. The theme for the 1985 scientific session is "Family in Distress." Both the presentations and discussion periods will contribute to the continuing medical education of Kentucky's physicians.

TWENTY SPECIALTY GROUPS will hold meetings on the afternoons of October 1 and 3. Beginning at 1:30 p.m., they will be held in the meeting rooms of the Galt House. Individual programs of specialty societies are listed in this issue. No general sessions are scheduled during the specialty group meetings and all KMA members are invited to attend any specialty meetings.

SCIENTIFIC AND TECHNICAL EXHIBITS will display new medical products, services and techniques in the General Sessions area of Galt House East during the 1985 Annual Meeting. Members and guests are urged to take the opportunity to view products of interest at the 30-minute intermissions scheduled during each general and specialty session.

THE KMA HOUSE OF DELEGATES will meet twice during the Annual Meeting. The first meeting of the House will be held at 9 a.m., Monday, September 30, in the Cochran Room, Galt House West. The final meeting will be held Wednesday, October 2, at 6 p.m. in the Archibald Room. Officers for the 1985-86 Associational year will be elected at the second meeting.

THE PRESIDENT'S LUNCHEON will be held on Wednesday, October 2, in the Grand Ballroom of the Galt House East. The luncheon will include the presentation of KMA awards and the installation of the 1985-86 President, Wally O. Montgomery, M.D.

1985 Annual Meeting to Honor Past President Frank H. Clarke, M.D.



FRANK H. CLARKE
1905

The 1985 Annual Meeting of the Kentucky Medical Association will be officially titled, "The Frank H. Clarke Meeting" in remembrance of the 1905 President of the Association.

The tradition of honoring a past president of KMA and other distinguished physicians originated at the 1935 Annual Meeting.

Eugene H. Conner, M.D., Lousiville, KMA Historian, has written a biography on Doctor Clarke for the Annual Meeting Program booklet to be distributed during the meeting in Louisville, October 1-3.

YOU ARE INVITED TO ATTEND

the

Twenty-third KEMPAC Annual Seminar — Banquet

"Politics of Medicine — The Difference Between Winning and Survival"

featuring



Michael E. Dunn
Washington, D. C.

A consultant in public affairs concerned with PACS, grass roots political action and political education

Monday, September 30, 1985, The Galt House, Louisville, Kentucky

6:00 p.m. EDT — Reception
7:00 — Dinner
Program to follow

Tickets ($25 each) are available through a KEMPAC Director or KEMPAC Headquarters Office — 3532 Ephraim McDowell Drive, Louisville, KY 40205

TELEPHONE — (502) 454–3505

You will want to attend.

Make your reservations NOW.

1985 Annual Meeting Program Summary

Kentucky Medical Association

September 29, 30, October 1, 2 and 3

The Galt House, Louisville

SUNDAY, SEPTEMBER 29

12:30 p.m.	KMA Board of Trustees Lunch & Meeting	Water Poet, Galt House West, 3rd Floor
6:00 p.m.	McDowell/Crawford Ball	Archibald Room, Galt House West

MONDAY, SEPTEMBER 30

9:00 a.m.	First Meeting, KMA House of Delegates	Cochran Room, Galt House West, 3rd Floor
12:30 p.m.	Luncheon, Reference Committee Chairmen	Corn Island Room, Galt House West, 3rd Floor
1:00 p.m.	Auxiliary Committee Meetings	Brown Room, Galt House East
2:00 p.m.	Reference Committee Meetings	Various Meeting Rooms, Galt House West, 3rd Floor
6:00 p.m.	KEMPAC Reception & Dinner	Archibald Room, Galt House West, 3rd Floor

TUESDAY, OCTOBER 1

7:00 a.m.	Maternal Mortality Committee	Collins Room, Galt House East
8:00 a.m.	Registration	Registration Room, Galt House East
8:50 a.m.	Opening Ceremonies	(Grand Ballroom) General Sessions Area, Galt House East
9:00 a.m.	First Scientific Session	(Grand Ballroom) General Sessions Area, Galt House East
12:00 noon	Luncheon Meeting, Executive Committee and Reference Committee Chairmen	Flagship Room, East Wheel, Galt House West, 3rd Floor
12:00 noon	Luncheon, Past Presidents & Board Chairmen	Anchor Room, Galt House West, 3rd Floor
1:30 p.m.	Specialty Group Sessions, Various Meeting Rooms, Galt House East (Eleven Specialty Groups will meet simultaneously at this time. Their programs begin on page 435.	
5:30 p.m.	Reception Honoring Wally O. Montgomery, M.D., and Jo-Ann Daus	Ballroom Foyer or Outside Terrace

WEDNESDAY, OCTOBER 2

8:50 a.m.	Second Scientific Session	General Sessions Area, Grand Ballroom, Galt House East
11:50 a.m.	President's Luncheon	President's Luncheon Area, Grand Ballroom, Galt House East
2:30 p.m.	Third Scientific Session	General Sessions Area, Grand Ballroom, Galt House East
3:00 p.m.	Board of Trustees Meeting and Dinner (5 p.m.)	Nunn Room, Galt House East
6:00 p.m.	Second Meeting, KMA House of Delegates	Archibald Room, Galt House West, 3rd Floor

THURSDAY, OCTOBER 3

8:50 a.m.	Fourth Scientific Session	General Sessions Area, Grand Ballroom, Galt House East
10:00 a.m.	KEMPAC Board	Governor's Room, Galt House East
12:00 noon	Luncheon Meeting, Board of Trustees	Brown Room, Galt House East
1:30 p.m.	Specialty Group Sessions, Various Meeting Rooms, Galt House East (Eight Specialty Groups will meet simultaneously at this time. Their programs begin on page 439.	

A 30-minute intermission has been scheduled during each morning and afternoon Scientific Session for visiting Scientific and Technical Exhibits

The Kentucky Medical Association SCIENTIFIC PROGRAM Frank H. Clarke Meeting Galt House, Louisville

"Family in Distress"

Tuesday, October 1, 1985
Morning General Session
General Sessions Area–Grand Ballroom–Galt House East
Charles C. Smith, Jr., M.D., KMA President, Presiding

8:15 a.m.	Movie
8:50 a.m.	Opening Ceremonies
9:00 a.m.	**"Care of the Dying Patient in the Home"** Richard Ham, M.D., Vancouver, British Columbia, Canada
9:20 a.m.	**"The Family in Distress: Bereavement"** Morris Green, M.D., Indianapolis, Indiana
9:40 a.m.	**"The Family in Distress: Surgical Responsibilities in the Evaluation and Care of the Battered Child"** John Noseworthy, M.D., Cincinnati, Ohio
10:00 a.m.	**Intermission to Visit Exhibits**
10:30 a.m.	**"Physical Deformity and Quality of Life"** William J. Futrell, M.D., Pittsburgh, Pennsylvania
10:50 a.m.	**"The Evaluation of the Infertile Male" & "Treatment of Men with Idiopathic Oligospermia"** Stuart S. Howards, M.D., Charlottesville, Virginia
11:10 a.m.	**"Comprehensive Treatment of Chronic Pain"** H. Martin Blacker, M.D., Houston, Texas
11:30 a.m.	**"Differential Diagnosis of Skeletal Fractures"** James C. Drennan, M.D., Newington, Connecticut

MORRIS GREEN, M.D.
Indianapolis, Indiana



Chairman and Professor of Pediatrics, Indiana University School of Medicine; Physician-in-Chief, James Whitcomb Riley Hospital for Children, Indiana University School of Medicine; and Perry W. Lesh Professor of Pediatrics. M.D., 1944, Indiana University School of Medicine. Member, American Pediatrics Society; American Federation for Clinical Research; Board of Directors, National Association of Children's Hospitals and Related Institutions; Editorial Board, *Journal of Developmental and Behavioral Pediatrics* and *Pediatrics Update*. Author of numerous articles.

WILLIAM J. FUTRELL, M.D.
Pittsburg, Pennsylvania



Professor and Chief, Division of Plastic Surgery, University of Pittsburg School of Medicine. M.D., 1967, Duke University School of Medicine, Durham, North Carolina. Member, International Society of Lymphology; Association for Academic Surgery; Virginia Surgical Society; American Society of Plastic and Reconstructive Surgeons; Society of Head and Neck Surgeons; AMA, and the American Association of Clinical Anatomists. Author of numerous publications.

STUART S. HOWARDS, M.D.
Charlottesville, Virginia



Professor of Urology and Physiology, Department of Urology, University of Virginia School of Medicine. M.D., 1963, College of Physicians and Surgeons, Columbia University, New York. Member, American Society of Nephrology; Virginia Urological Association; Virginia Medical Society; Society of University of Urologists; American Fertility Society; American College of Surgeons; American Association for the Advancement of Science; Editorial Board, *American Journal of Kidney Disease*, and Associate Editor, *Seminars and Urology*.

Afternoon Session
Specialty Group Meetings

Ky Chapter, American College of Chest Physicians
Brown Room—Galt House East

1:30 p.m. **"Perspectives on Mechanical Support of Ventilation"**
William A. Speirs, Jr., M.D., Augusta, Georgia
2:00 p.m. **"Circulatory Assistance in Congestive Heart Failure"**
William DeVries, M.D., Louisville, KY
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. To Be Announced

Ky Chapter, American Academy of Family Physicians
Breathitt Room—Galt House East

1:30 p.m. **"Care of the Dying Patient in the Home"**
Richard Ham, M.D., Vancouver, British Columbia, Canada
2:00 p.m. **"Doctor, I've Got a Problem Down There"**
Jean Arnold, M.D., Utica, New York
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Death & Dying"**
Jane Thibault, Ph.D., Louisville, KY

Ky Neurosurgical Society
Suite 746, 7th Floor—Galt House East
Program To Be Announced

Ky OB/GYN Society–Ky Section ACOG
Carroll/Ford Room—Galt House East

1:30 p.m. **"To Be Announced"**
J. Patrick Lavery, M.D., Louisville, KY
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. Business Meeting

Ky Orthopedic Society
Nunn Room—Galt House East
Program To Be Announced

Ky Society of Pathologists
Court Room–Galt House West–2nd Floor

1:30 p.m. **"Current Perspectives in the Pathology of Sudden Infant Death Syndrome"**
Henry R. Krous, M.D., San Diego, CA
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Current Perspectives in the Pathology of Sudden Infant Death Syndrome" (con't)**
Henry F. Krous, M.D., San Diego, CA

Ky Chapter, American Academy of Pediatrics
Combs/Chandler Room—Galt House East

1:30 p.m. **"Family Dynamics Overview"**
Abe Fosson, M.D., Lexington, KY

2:00 p.m. **"The Pediatrician and Family Adaptation to Divorce"**
Morris Green, M.D., Indianapolis, Indiana

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"The Dynamic Process of Raising an Adolescent"**
Kenneth Schikler, M.D., Louisville, KY

3:30 p.m. **"Open Forum on Family Dynamics"**
Doctors Green; Fosson; & Schikler from above

Ky Society for Plastic & Reconstructive Surgery
Governor's Room—Galt House East

1:30 p.m. **"Coronal Forehead Lifts"**
William Dowden, M.D., Lexington, KY

1:40 p.m. **"Total Auricular Avulsion & Reconstruction Complication & Their Avoidance"**
Ken Stein, M.D., Louisville, KY

1:50 p.m. **"The Exposed Achilles Tendon Coverage & Preservation of Function"**
B. Kaplan, M.D., Louisville, KY

2:00 p.m. **"Limb Salvage for the End Stage Diabetic Ulceration"**
Bruce Silverberg, M.D., Louisville, KY

2:10 p.m. **"Facial Duplication Syndrome-An Unusual Presentation"**
Gerald D. Verdi, D.D.S., M.D., Louisville, KY

2:20 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Topic To Be Announced"**
William J. Futrell, M.D., Pittsburgh, Pennsylvania

3:20 p.m. **"Revascularization Followed by Microsurgical Free Tissue Transfer: an Alternative to Amputation for Ischemic Ulcerations of the Lower Extremity"**
Joseph C. Banis, Jr., M.D., Louisville, KY

3:30 p.m. **"Transmandibular Approach to the Posterior Pharynx & Anterior Cervical Spine"**
Dale Roberts, M.D., Louisville, KY

Ky Psychiatric Association
Cochran Room—Galt House East

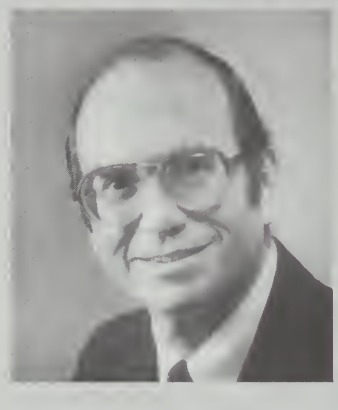
1:30 p.m. **"The Impaired Physician"**
Stephen Scheiber, M.D., Tucson, Arizona

2:00 p.m. **"Teenage Suicide"**
Mohammad Shafii, M.D., Louisville, KY

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Alcoholism in Families in Distress"**
Harvey St. Claire, M.D., Louisville, KY

MARTIN H. BLACKER, M.D.
Houston, Texas



Director, Pain Control and Biofeedback Clinic, Anesthesiology and Neurosurgery, Baylor College of Medicine, Houston. M.D., 1959, University of Nebraska Graduate College Medical School. Member, Johns Hopkins Medical and Surgical Society; Congress of Neurological Surgery; AMA; and American Association of Neurological Surgeons (The Harvey Cushing Society).

JAMES C. DRENNAN, M.D.
Newington, Connecticut



Senior Orthopaedic Attending, Department of Orthopaedics, Newington Childrens Hospital. M.D., 1961, Cornell University Medical College, Ithaca, New York. Associate Editor, *Clinical Orthopaedics & Related Research* and *Journal of Pediatric Orthopaedics*; Chairman, Fellowship Commission, Pediatric Arthritis Society. Member, American Academy of Orthopaedic Surgeons; American Academy of Pediatrics; Society for Research into Hydrocephalus & Spina Bifida; Irish-American Orthopaedic Society. Author of numerous articles.

J. PATRICK LAVERY, M.D.
Louisville, Kentucky



Director, Division of Maternal-Fetal Medicine, and Associate Professor, Department of Obstetrics and Gynecology, University of Louisville School of Medicine. Medical Director, Teenage Parent Program (TAPP), and Civilian Consultant to U.S. Army, Maternal-Fetal Medicine, Ireland Army Hospital, Fort Knox, Kentucky. M.D., 1968, Syracuse University, New York. Editor, "Perinatal Coordinating Center Newsletter." Member, American Society of Law and Medicine; KMA; American College of Nutrition.

STEPHEN C. SCHEIBER, M.D.
Tucson, Arizona



Professor in Psychiatry, University of Arizona College of Medicine. M.D., 1964, State University of New York at Buffalo. Fellow, American College of Psychiatrists; Associate Examiner, American Board of Psychiatry and Neurology. Member, AMA; Association for Academic Psychiatry; National Institute of Mental Health. Author of numerous articles.

Ky Chapter, American College of Surgeons
General Sessions Area—Grand Ballroom—Galt House East

1:30 p.m. **"Surgical Problems with Family Abuse"**
John Noseworthy, M.D., Cincinnati, Ohio
2:00 p.m. Selected papers from the membership to be announced

Ky Urological Association
Collins Room—Galt House East

1:30 p.m. **"One Year's Experience with Extracorporeal Shock Wave Lithotripsy" (ESWL)**
Stuart S. Howards, M.D., Charlottesville, Virginia
Intermission to Visit Exhibits
3:00 p.m. **"Pyelogram Presentations" (Emphasis on percutaneous successes and complications, ESWL cases, and infertility problems)**
4:15 p.m. Annual Business Meeting

Wednesday, October 2, 1985
Morning General Session
General Sessions Area–Grand Ballroom–Galt House East
Max A. Crocker, M.D., Scientific Program Committee Chairman, Presiding

8:15 a.m. Movie
8:50 a.m. Opening Ceremonies
9:00 a.m. **"Teenage Pregnancy: Medical or Social Problem"**
J. Patrick Lavery, M.D., Louisville, KY
9:20 a.m. **"Stress, Impairment & the Psychiatrist"**
Stephen Scheiber, M.D., Tucson, Arizona
9:40 a.m. **"Family Counseling in Sudden Infant Death Syndrome"**
Henry F. Krous, M.D., San Diego, CA
10:00 a.m. **Intermission to Visit Exhibits**
10:30 a.m. **"Topic To Be Announced**
Shervert Frazier, M.D., Rockville, Maryland
11:15 a.m. **"Women in Medicine: A Force for the Future"**
Jeanne Arnold, M.D., Utica, New York
12:00 noon **President's Luncheon**

PRESIDENT'S LUNCHEON
Grand Ballroom
Galt House East
11:50 a.m.
Charles C. Smith, Jr., M.D., Louisville
KMA President, Presiding

Invocation
Recognition
Awards Presentation

S. Randolph Scheen, M.D., Louisville
Chairman, KMA Awards Committee

Installation of the New KMA President

Afternoon General Session
General Sessions Area–Grand Ballroom–Galt House East
Richard F. Hench, M.D., KMA Vice President, Presiding

2:30 p.m. **"The Artificial Heart Experience"**
William DeVries, M.D., Louisville, KY

2:50 p.m. **"Medical/Legal Aspects of Child Abuse"**
Rowine Hays Brown, M.D., Chicago, Illinois

3:10 p.m. **Intermission to Visit Exhibits**

3:40 p.m. **"Recurrent Infections in the First Four Years of Life: How to Distinguish the Healthy Child From One With Immunodeficiency"**
Alexander Lawton, M.D., Nashville, Tennessee

4:00 p.m. **"Amniocentesis"**
Andrew Fried, M.D., Lexington, KY

Thursday, October 3, 1985
Morning General Session
General Sessions Area–Grand Ballroom–Galt House East
Henry R. Bell, M.D., Vice Chairman, KMA Board of Trustees, Presiding

8:15 a.m. Movie

8:50 a.m. Opening Ceremonies

9:00 a.m. **"The Abused Handicapped Child"**
Patrick E. Brookhouser, M.D., Omaha, Nebraska

9:20 a.m. **"Abnormal Illness Behavior"**
Barry Blackwell, M.D., Milwaukee, Wisconsin

9:40 a.m. **"Dealing With Families In Traumatic Situations"**
Douglas Rund, M.D., Columbus, Ohio

HENRY F. KRAUS, M.D.
San Diego, California



Director of Pathology, San Diego Children's Hospital and Health Center. M.D., 1969, University of Nebraska, Omaha. Member, Society of Pediatric Pathology; Oklahoma State Association of Pathologists; AMA; Southeast Pediatric Nephrology Study Group. Author of numerous articles.

SHERVERT H. FRAZIER, M.D.
Rockville, Maryland



Director, National Institute of Mental Health. M.D., 1943, University of Illinois College of Medicine. Member, American Psychiatric Association, Secretary 1983; American College of Psychiatrists; American College of Physicians; Past President, American Board of Psychiatry and Neurology; Advisory Editor, *Journal of the Academy of Psychosomatic Medicine*; Chairman, Editorial Board American Psychiatric Press, Inc.

ROWINE HAYES BROWN, M.D., J.D.
Chicago, Illinois



Medical Director, Cook County Hospital. M.D., 1938, University of Illinois College of Medicine. Adjunct Professor of Law, Chicago Kent College of Law. Fellow, American Academy of Medical Directors; American Academy of Pediatrics; American College of Legal Medicine; American Society of Law and Medicine. Member, American Medical Women's Association; Illinois State Medical Society; Brain Research Foundation. Past President, Women's Bar Association of Illinois.

ALEXANDER R. LAWTON, III, M.D.
Nashville, Tennessee



Director, Division of Pediatric Immunology, Department of Pediatrics, Vanderbilt School of Medicine; Professor, Department of Microbiology and Edward C. Stahlman Professor of Pediatric Physiology and Cell Metabolism, Department of Pediatrics, Vanderbilt School of Medicine. M.D., 1964, Vanderbilt University School of Medicine, Nashville, Tennessee. Member, Editorial Board, *Clinical Immunology and Immunopathology* and *Journal of Clinical Immunology*; American Pediatrics Society; American Society for Clinical Investigation; American Association of Immunologists and Southern Society for Pediatric Research. Author of numerous publications.

10:00 a.m. **Intermission to Visit Exhibits**
10:30 a.m. **"Chronic Pain"**
Jack R. Collins, M.D., Bridgeton, Missouri
10:50 a.m. **"Substance Abuse—The Workplace & The Family"**
Joseph H. Deatsch, M.D., Jacksonville, Florida
11:10 a.m. **"The Role of Therapeutic Endoscopy in Palliation of GI Cancer"**
Richard Kozareck, M.D., Seattle, Washington
11:30 a.m. **"Androgenic Alopecia: Update"**
Wilma Bergfeld, M.D., Cleveland, Ohio

Afternoon Session
Specialty Group Meetings

Ky Society of Allergy & Clinical Immunology
Suite 746, 7th Floor—Galt House East

1:30 p.m. **"Regulation of Growth and Differentiation of B Cells"**
Alexander R. Lawton, M.D., Nashville, Tennessee
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Exercise Induced Anaphylaxis"**
John S. Hill, M.D., Lexington, KY
3:30 p.m. **"Double Blind Study of the Effect of Tiprinast on the Treatment of Ragweed Hay Fever"**
Clarence Thompson, M.D., Louisville, KY

Ky Society of Anesthesiologists
Combs/Chandler Room—Galt House East

1:30 p.m. **"The Clinical Significance of Prostaglandins to the Anesthesiologists"**
W. David Watkins, M.D., Ph.D., Durham, North Carolina
2:00 p.m. **"Anesthesia for Outpatient Surgery"**
Jack R. Collins, M.D., St. Louis, Missouri
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"The Recent Advances in Cerebral Resuscitation"**
Harvey L. Edmunds, Jr., Ph.D., Louisville, KY
3:30 p.m. **"Anesthesia for Artificial Heart and Heart Transplant"**
Patrick T. Shanahan, M.D., Louisville, KY

Ky Dermatological Society
Purple Clinic at Norton's Hospital-Louisville

1:30 p.m. Case Presentations
2:30 p.m. Coffee Break
3:00 p.m. Case Discussions-(Auditorium-Norton's Hospital)

Ky Chapter, American College of Emergency Physicians
Governor's Room—Galt House East

1:30 p.m. **"Teenage Suicide"**
Douglas Rund, M.D., Columbus, Ohio
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. Business Meeting

Ky Society of Otolaryngology
Chandler Room—Galt House East

1:30 p.m. **"Overview & Update of Communicative Disorders in Children"**
Patrick E. Brookhouser, M.D., Omaha, Nebraska
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Tracheostomy in the Pediatric Patient"**
Toni M. Ganzel, M.D., Louisville, KY
3:30 p.m. **"Rehabilitation of the Laryngectomy Patient"**
Barbara M. Baker, Ph.D., Louisville, KY

Ky Society for Gastrointestinal Endoscopy
Collins Room—Galt House East

1:30 p.m. **"Most Recent Advances in Therapeutic Endoscopy"**
Richard Kozareck, M.D., Seattle, Washington
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Louisville Experience with Laser Therapy"**
Richard Wright, M.D., Louisville, KY
3:30 p.m. **"ERCP with Sphincterotomy"**
Norman Gilinsky, M.D., Lexington, KY

Ky Chapter, American College of Physicians
Carroll/Ford Room—Galt House East

1:30 p.m. **"What to do with the Worried Well"**
Barry Blackwell, M.D., Milwaukee, Wisconsin
2:00 p.m. **"The Rational Use of Non-Steroidal Anti-inflammatory Drugs"**
Norman Cummings, M.D., Louisville, KY
2:30 p.m. **Intermission to Visit Exhibits**
3:00 p.m. **"Acquired Immune Deficiency Syndrome; 1985"**
Esther Costel, M.D., Louisville, KY
3:30 p.m. **"Computer Assisted Cardiovascular Diagnosis"**
John Elion, M.D., Lexington, KY

ANDREW M. FRIED, M.D.
Lexington, Kentucky



Associate Professor, Department of Diagnostic Radiology; Chief, Section of Ultrasound, and Coordinator, Special Procedures Section, University of Kentucky Medical Center, Lexington. M.D., 1968, University of Alabama Medical College, Birmingham. Member, American Board of Radiology; American Institute of Ultrasound in Medicine; American Roentgen Ray Society; Reviewer, *American Journal of Roentgenology*.

PATRICK E. BROOKHOUSER, M.D.
Omaha, Nebraska



Father Flanagan Professor & Chairman, Department of Otolaryngology and Human Communications, Creighton University School of Medicine, Omaha; Director, The Boys' Town National Institute for Communication Disorders in Children, Omaha. M.D., 1966, Johns Hopkins University School of Medicine, Baltimore. Member, American Academy of Otolaryngology; American Academy of Pediatrics; American Auditory Society; American Association of University Professors; Board of Directors, Hearing, Educational Aid and Research Foundation, Washington, D.C.

BARRY BLACKWELL, M.D.
Milwaukee, Wisconsin



Professor and Chairman, Department of Psychiatry, University of Wisconsin Medical School, and Director, Behavioral Medicine Program, Mt. Sinai Medical Center, Milwaukee. M.D., 1966, Cambridge University, London. London University, Academic Diploma, Psychological Medicine (equivalent of board certification). Member, Review Board of *American Journal of Psychiatry, Psychiatric Medicine, JAMA, General Hospital Psychiatry, Journal of Cardiac Rehabilitation*; Society for Biological Psychiatry; AMA; and Royal College of Psychiatrists. Author of numerous articles.

Ky Occupational Medical Association
Nunn Room—Galt House East

1:30 p.m. **"To Be Announced"**
Joseph Deatsch, M.D., Jacksonville, Florida

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. **"Video Display Units—Health Hazards"**
John Rose, M.D., Louisville, KY

3:20 p.m. **"Carpal Tunnel Syndrome—Precipitating Factors in the Workplace"**
Lyle Boyea, M.D., Louisville, KY

3:40 p.m. **"Preoperative Screening—A Life Saving Endeavor"**
Morton Kasdan, M.D., Louisville, KY

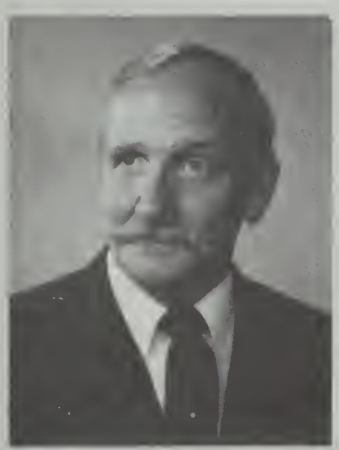
Ky Association of Public Health Physicians
Breathitt Room—Galt House East

1:30 p.m. **"Topic To Be Announced"**
Rowine Hayes Brown, M.D., J.D., Chicago, Illinois

2:30 p.m. **Intermission to Visit Exhibits**

3:00 p.m. Business Meeting

JACK R. COLLINS, M.D.
St. Louis, Missouri



Medical Director and Chief Anesthesiologist, American Surgery Center, St. Louis, and Assistant Professor of Anesthesiology, St. Louis University School of Medicine. M.D., 1965, Missouri School of Medicine, Columbia, Missouri. Member, AMA; Missouri State Medical Association; American Society of Anesthesiologists; American Society of Regional Anesthesia; International Anesthesia Research Society; Past President, Military Society of Anesthesiologists. Author and lecturer.

JOSEPH H. DEATSCH, M.D.
Jacksonville, Florida



Medical Director, River Region Human Services, Inc. M.D., 1943, University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania. Member, Florida Medical Association; AMA; Florida Governor's Commission on Drug and Alcohol Concerns; Florida Cocaine Task Force; Chairman, Commission for Impaired Physicians, Duval County Medical Society.

WILMA F. BERGFELD, M.D.
Cleveland, Ohio



Head, Section Dermatopathology, Department of Pathology, Cleveland Clinic Foundation, Departments of Dermatology and Pathology. M.D., 1964, Temple University Medical School, Philadelphia, Pennsylvania. Member, American Academy of Dermatologists, Board of Directors; American Dermatological Association; Fellow, American College of Physicians; Society of Investigative Dermatology; Chairman, Program Section of Allergy and Dermatology, American Society for Clinical Pharmacology and Therapeutics; Past President, Cleveland Dermatology Society and Women's Dermatological Society; AMA; Advisory Board, National Alopecia Areata Foundation.

The KMA has approved this program for 16½ hours Category 1 Credit. The KMA is accredited by the Accrediting Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The specialty groups at the Annual Meeting are approved for Category 1 Credit. The total number of actual hours offered to physicians at the Annual Meeting will be in excess of 60 hours. Maximum number of hours a physician may obtain for three days attendance is 16½. Hours are determined by actual time at presentations, more than 14 minutes is rounded to the nearest half hour and more than 45 minutes is rounded to the next full hour.

Summaries of General Sessions Presentations 1985 KMA Annual Meeting

Androgenic Alopecia: Update

Wilma F. Bergfeld, M.D.

This presentation will consider what is new in the evaluation and treatment of women with male-pattern alopecia, androgenic alopecia. Detailed information will be given about ovarian, adrenal and mixed endocrine dysfunctions which have been shown to induce alopecia. In addition, interest will be given to hair follicle sensitivity to testosterone metabolates.

Recurrent Infections in the First Four Years of Life: How to Distinguish the Healthy Child from One with Immunodeficiency

Alexander R. Lawton, III, M.D.

Development of the immune system begins about the middle of the first trimester, and proceeds very rapidly. By mid-gestation the relative numbers of B and T lymphocytes in lymphoid organs and blood are similar to adult values. These lymphoid populations are extremely diverse, so that most antigens can be recognized by appropriate clones of B and T cells. At birth the immune system is much like the nervous system. Both have a high level of intelligence, but nearly no education. Education of the immune system is acquired by exposure to environmental antigens, including disease-causing pathogens. It is to be expected that between six months, when passive immunity due to transplanted IgG wanes, and five to six years, the frequency of infections in normal children will be six to 10 times that in adults.

Clues helpful in recognition of immunodeficiency include: growth failure; recurrent bacterial infections at sites other than the middle ear or urinary tract; Candida infections unresponsive to therapy; and infections with unusual organisms (*ie Pneumocystis carinii*, atypical mycobacteria). Chronic or recurrent otitis media, recurrent upper respiratory infections no matter how frequent, or urinary tract infections are rarely associated with immunodeficiency unless one or more of the former findings are also present.

An approach to the laboratory diagnosis of immune deficiency will be presented.

Physical Deformity and Quality of Life

William J. Futrell, M.D.

In the talk I will attempt to present the impact and treatment options of various acquired and congenital deformities as they relate to patients and family members.

The Evaluation of the Infertile Male and Treatment of Men with Idiopathic Oligospermia

Stuart S. Howards, M.D.

The evaluation of the infertile male should begin with a complete history and physical. Routine laboratory evaluation includes urinalysis and semen analyses. In selected individuals a urine culture, serum FSH, LH and testosterone, testis biopsy, immunologic studies, sperm hamster-egg interaction tests are indicated. These examinations, however, should not be done routinely, indications will be discussed in detail. Many men who present with infertility have idiopathic oligospermia; that is, there is no apparent cause for their suboptimal semen quality. There is no proven therapy for these men. There are several drugs for which there is suggestive evidence of efficacy. These include Clomiphene, HCG,

Teslac, Tamoxifen. The results of treatment with these compounds will be summarized and recommendations for treating men with idiopathic oligospermia will be made.

Substance Abuse — The Workplace and the Family

Joseph H. Deatsch, M.D.

I will touch upon the changing family structure, the different profiles of substance abusers, the identification, intervention, and treatment processes, the impact of DRG's and third party payments, and the impaired professional.

The Abused Handicapped Child

Patrick E. Brookhouser, M.D.

Each year more than one million American children experience some significant form of maltreatment, including physical assault, neglect of basic needs, sexual exploitation, and emotional deprivation. Within this tragedy lies the cruel reality that handicapped children are highly vulnerable to physical and sexual abuse and, in many cases, they cannot communicate well enough to report it. While only 12% of all children are handicapped, well documented studies show that children with handicaps constitute between 25% and 60% of all abuse and neglect victims. The birth of a child with a serious defect or disability, such as deafness, is a painful event for parents, siblings and others related to the family. The family's hope for a "perfect child" must give way to an acceptance of the child's limitations, need for specialized evaluative and habilitative services, and potential for chronic dependency upon the parents, even into adulthood. In some cases, institutional placement of the child for educational or vocational services is judged to be necessary. Parental feelings about the child may become colored by anger, denial and guilt which characterize the normal "grieving" process experienced by parents of a severely handicapped child.

Handicaps which reduce a child's ability to communicate, respond or otherwise meet expectations at home, in school or in residential institutions make some children more vulnerable to abuse and neglect, as well as less able to seek assistance from others. In many cultures, handicapped children have traditionally been viewed as "damaged" or otherwise less valuable than normal children. Such a stigma heightens the risk for maltreatment of handicapped children, may lead to a lowering of standards for care and can serve as a kind of license to abuse them. Apart from pre-existing handicaps, deafness, mental retardation, blindness, and other handicapping conditions can also result from abusive treatment. This damage may lead to further victimization by impairing the child's ability to meet parental expectations, by requiring special care exceeding parental resources, by leading the parent to reject the child, or by causing the parent to institutionalize the child, with attendant risks for institutional maltreatment.

The first step in identifying the handicapped child who has been physically or sexually abused is to maintain a high index of suspicion because the child will only rarely complain specifically about what has happened. As might be imagined, the examiner must win the child's confidence before the youngster will feel comfortable dicussing a subject as sensitive as a sexual relationship with an adult caretaker. In addition, the child may have been threatened with serious consequences should he/she divulge information about the sexual abuse incident(s). The final major impediment to learning about the communicatively impaired child's abuse experience may be his/her preferred mode of communication, which is manual signing in many cases. It is important that unbiased interpreters, neither family members nor school personnel, be employed during any questioning regarding abuse. To identify those children in need of further evaluation, the physician, together with his/her office staff, should employ a checklist of physical and behavioral high risk indicators for identifying the sexually abused child.

Amniocentesis: Indications and Techniques

Andrew M. Fried, M.D.

A brief discussion is presented of the indications for amniocentesis in various stages of pregnancy including cytogenetics studies, Rh isoimmunization, and fetal lung maturity. The technique is outlined including roles of the Obstetrician, Radiologist and Technologist. Risks, complications and counseling are included.

Abnormal Illness Behavior

Barry Blackwell, M.D.

Individuals behave in highly different ways to perceptions of disease and to symptoms. This presentation will describe the many biological, psychological, and social factors which influence the patient's perception of distress including the role of family members as potential reinforcers for abnormal illness behavior. The concept of abnormal illness behavior can be used to understand and assist in the management of the worried well in primary care settings and more seriously sick individuals with conditions such as the chronic pain syndrome.

Teenage Pregnancy: Medical or Social Problems

J.P. Lavery, M.D.

Teenage pregnancy occurs to a significant degree in the United States. Over one-half a million births in the United States per year in the 1980s have been to women under 19 years of age. Although as a percentage of the total population, this appears to be leveling off. It is still a critical problem.

In the past, adolescent pregnancy has been associated with many obstetrical risks including increased maternal mortality of toxemia, prematurity, cephalopelvic disproportion, low birth weight infants, and increased cesarean section rates. An extensive review of the literature on these particular subjects suggest that in medically managed situations, the incidence of these problems can be significantly modified and indeed brought to near normal frequency.[1]

Of gravest concern is the incidence of recurrent pregnancies. Although intense efforts at several locations have been initiated to decrease the incidence of adolescent pregnancies, recurrent pregnancies continue to be a major problem.[2,3]

The University of Louisville in cooperation with the Board of Education has established a teenage-parent program which has been in existence now for over 12 years. The results of this program have shown significant success in terms of medical management with a premature birth rate of approximately 6.5% on over 2,000 patients and a cesarean section rate of 9.9%. The overall perinatal mortality rate for this review from 1970 through 1983 was 1.8%.

In summary, with intense medical management particularly in programs organized primarily for adolescence, the perinatal mortality and obstetrical complication rate can be kept to a minimum. The social problem of the incidence of the problem, as well as the high recurrence rate despite intense education, remains to be the challenge yet to be surmounted.

Stress, Impairment and the Psychiatrist

Stephen C. Scheiber, M.D.

Organized medicine has been responsive to the problems of the impaired physician. Phase I of a joint AMA/APA study of physician mortality in five states compared the psychosocial profiles of physicians who suicided with those physicians dying from natural causes. Phase II is a study of all states through APA and AMA impaired physician committees. The APA Committee studied psychiatrists who suicided and helped to develop a prevention and education program through district branches. Joint efforts and responsibilities with AMA impaired physician committees include: identifying, verifying and interviewing impaired physicians; helping physicians to find treatment; serving as advocates to help arrange care, office coverage, family support and rehabilitation; and monitoring progress. Preliminary findings will be reported and the way psychiatrists and other physicians can collaborate to identify stress-induced impairment will be elaborated.

Comprehensive Treatment of Chronic Pain

H. Martin Blacker, M.D.

Pain is usually a useful alarm which generally signals treatable pathology. However, occasionally pain persists when there is no longer a specifically remediable condition. Repeated operations too often are unrewarding and narcotic medication produces a drug dependency state which dominates the patient's life, yet provides no useful relief.

It is the very complexity of the pain transmission pathway that permits a comprehensive approach to modify the pain. "Comprehensive" in this context means applying a variety of techniques that address the pain signal from the periphery, through the synaptic regions of the spinal cord, and enhancement of cortical mechanisms of pain control. These tactics include physical therapy, transcutaneous electrical nerve stimulation, drug detoxification, pharmacologic interference, biofeedback and psychological counseling.

This approach can often help the patient to reach a normal or near normal level of function.

We have a database of over 300 patients followed for minimum of six months up to three years from the Pain Control and Biofeedback Clinic at the University of Kentucky and at the Baylor College of Medicine. Data are presented which reflect techniques of patient selection, treatment methods, and outcome.

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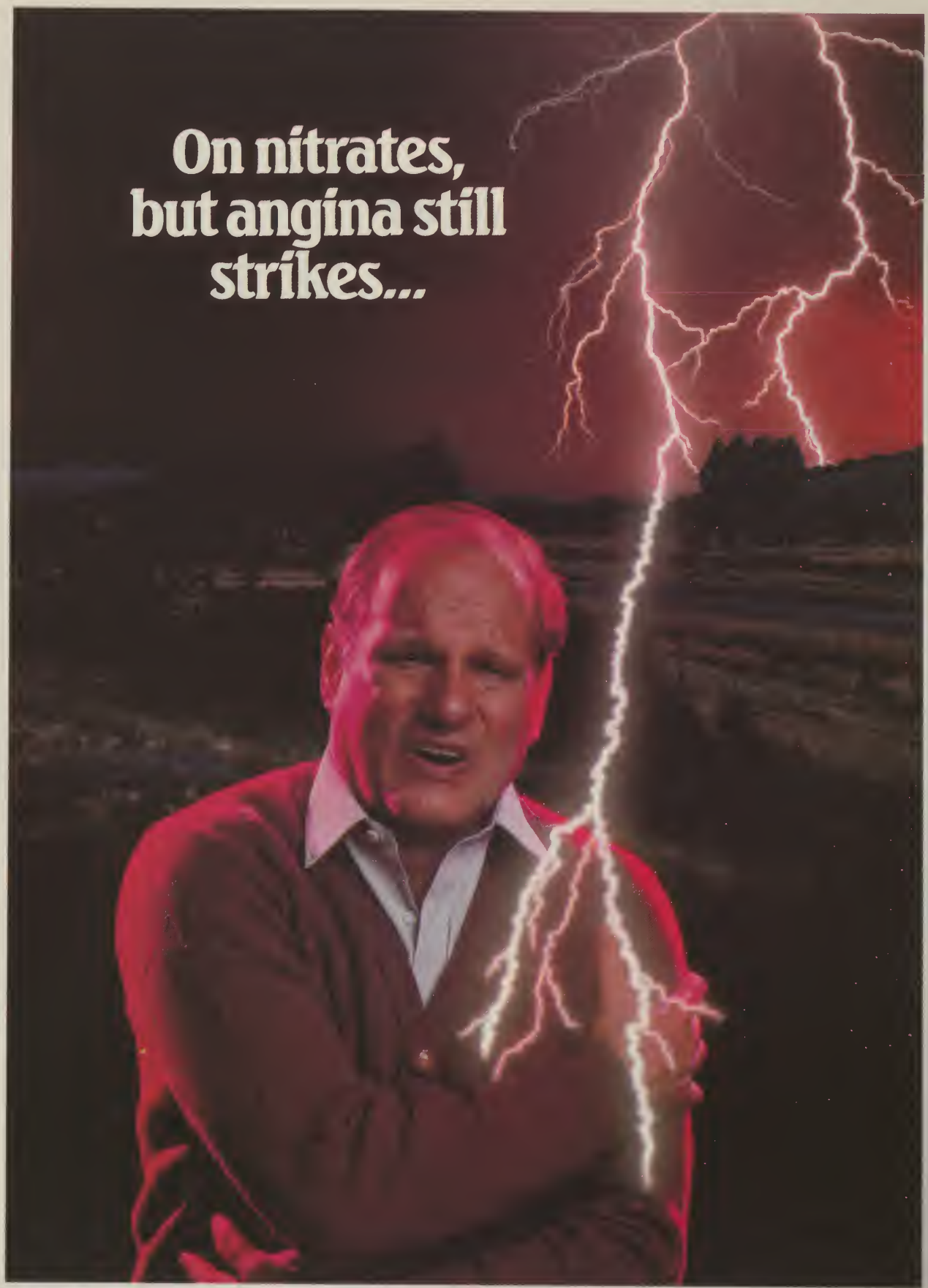
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Contraindications: Severe left ventricular dysfunction (see *Warnings),* hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.)* Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions.*) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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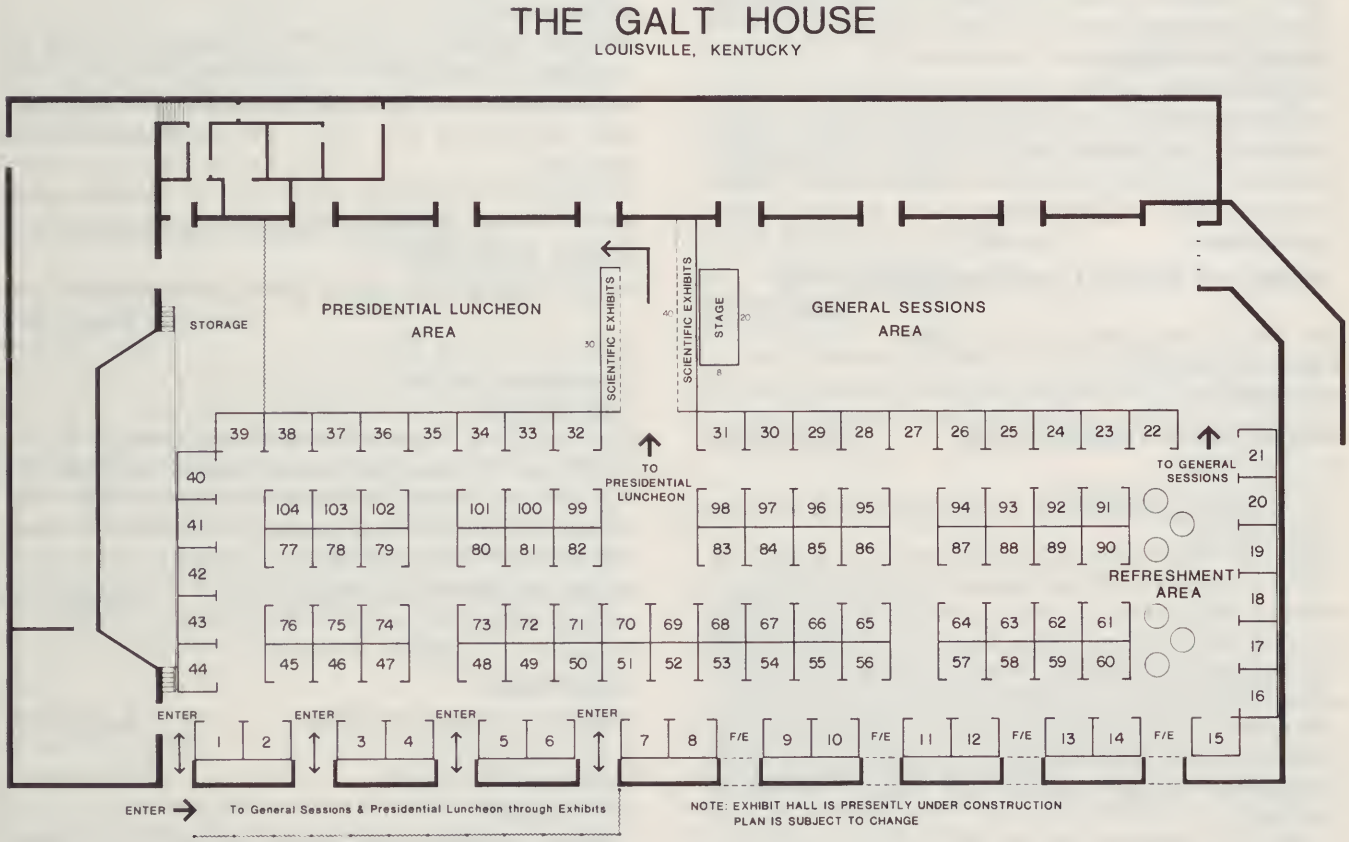
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Latest Research Advances in Products and Services Offered by 1985 Technical Exhibits

The Technical Exhibits at the 1985 KMA Annual Meeting will feature the latest developments in medical techniques and information. Located in the Galt House, the exhibits will condense a volume of information and ideas in such a manner that a vast amount of knowledge can be secured in a short period of time.

Prepared carefully and skillfully to appeal to you, the physician, the exhibits are especially geared to your special interests as a practitioner. Medical representatives and other exhibitors will be on hand to discuss personally their products and services with you. Both you and your patients should benefit from the information that can be gained from a visit to the Technical Exhibits.

Thirty-minute intermissions have been planned during each general and specialty group session so that every physician may take advantage of this excellent opportunity provided by the exhibits.



TECHNICAL EXHIBITS

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Louisville, KY 40223
(502)423-7536
A presentation of THE MEDICAL MANAGER showing patient clinical information and billing. The system is designed to take advantage of the latest state of the art Micro computers, including all major brands. Features of the system include: 3rd party insurance billing, including all major carriers in Medicaid, Medicare, Open item accounting, completely menu driven, maintains multiple doctor practices, aged receivables by Patient, Insurance Company, Doctor and Practice, handles hospital rounds, Procedure & Diagnosis history, and appointments/recalls.

DISTA PRODUCTS COMPANY **Booth #6**
Lilly Corporate Center
Indianapolis, IN 46285
(317)261-2554
You are cordially invited to visit the Dista Products Company exhibit. Our sales representatives in attendance will welcome your questions about our pharmaceutical products.

DIVISION FOR DISABILITY DETERMINATIONS **Booth #15**
P. O. Box 1000
Frankfort, KY 40602
(502)564-5132
Under an agreement with the Department of Health & Human Services, we prepare Social Security and Supplemental Security Income disability determinations on Kentucky applicants. Our exhibit is staffed by members of our medical staff & disability examiners—both of whom are actively involved in adjudicating claims filed for disability benefits. We will be available to answer questions, explain criteria and talk to physicians interested in helping us evaluate over 25,000 claims per year.

DORSEY PHARMACEUTICALS **Booth #50**
59 Rt. 10
East Hanover, NJ 07936
(201)386-8005
DORSEY PHARMACEUTICALS invites you to stop by our exhibit where our representatives will be pleased to provide information on our products and on educational materials that we have available.

DUPONT PHARMACEUTICALS **Booth #79**
BRML-Caverly Mill Bldg.
Wilmington, DE 19898
(800)441-7516

ENCYCLOPAEDIA BRITANNICA, USA **Booth #81**
310 S. Michigan Avenue
Chicago, IL 60604
(312)347-7342

AMELIA BROWN FRAZIER REHABILITATION CENTER **Booth #12**
220 Abraham Flexner Way
Louisville, KY 40202
(502)582-2231

GERBER PRODUCTS COMPANY **Booth #7**
445 State Street
Fremont, MI 49412
(616)928-2257
You are cordially invited to visit the GERBER display. MEAT BASE FORMULA, NUK products, nursers/accessories, humidifiers/vaporizers, car seats, patient booklets and a broad selection of GERBER BABY FOODS will be featured. Our Medical Marketing representatives will be happy to discuss our products and services with you.

GLAXO, INC. **Booth #70**
Five Moore Drive
Research Triangle Park, NC 27709
(919)248-2100
You are cordially invited to visit the Glaxo exhibit, where our representatives will be pleased to discuss TRANDATE®, the first combined alpha and beta blocker for the treatment of hypertension, and also to discuss cephalosporin therapy, and the therapeutic advances offered for today's cost-conscious hospital environment.

GUILD OF PRESCRIPTION OPTICIANS OF KENTUCKY **Booth #47**
640 4th Avenue
Louisville, KY 40202
(502)583-0687
Eyeglasses Adjusted—visit our booth to have your eyeglasses properly adjusted for maximum comfort and visual benefit. Minor repairs also can be made on the spot. Free Distance and Near Vision test cards, for use by the general practitioner, are offered. Your Guild Optician works closely with the ophthalmologist to provide the best in visual aid appliances. Support the Eye Physician Guild Optician type of eye services for better eye care.

HADDEN COMPANY **Booth #63**
420 W. Lee Street
Louisville, KY 40208
(502)634-4741

HEALTH DATA NETWORK **Booth #62**
P. O. Box 4478
Louisville, KY 40204
(502)585-1391
HEALTH DATA NETWORK will present a live on-line computer system actually running a model practice. It will demonstrate how easily daily cash and accounts receivable can be controlled and how patient records are instantly updated and billed. Samples of patient billings, collection letters, third party payor billings and reports to aid in practice management will be available. A representative will be present to answer questions.

HOECHST-ROUSSEL PHARMACEUTICALS, INC. **Booth #99**
Route 202-206 North
Somerville, NJ 08876
(201)231-2727
Trental® (pentoxifylline) is the first proven effective agent for the treatment of intermittent claudication symptomatic of peripheral vascular disease. Trental® has been shown to improve red cell flexibility and lower blood viscosity. Stop by the Hoechst-Roussel Pharmaceuticals, Inc., exhibit for more information about this new treatment approach for intermittent claudication.

HOSPITAL CORPORATION OF AMERICA **Booth #98**
P. O. Box 550
Nashville, TN 37202
(800)251-2561
Hospital Corporation of America (HCA), Professional Relations Department, provides a free placement service to physicians wishing to locate a practice opportunity. HCA has a current network of 400+ facilities in 44 states and 5 foreign countries. Physicians can contact HCA, in confidence, and indicate their geographical and professional preferences.

HUMANA, INC. **Booth #74**
P. O. Box 1438
Louisville, KY 40201
(502)561-2300
HUMANA owns and operates 87 hospitals, including 7 in Kentucky. Stop by our booth and discuss private practice opportunities in our Kentucky communities.

INDEPENDENCE HEALTH PLAN OF KENTUCKY **Booth # 78**
870 Corporate Drive, Suite 402
Lexington, KY 40503
(606)223-4554

INFO-MED, INC. **Booth #55**
P. O. Box 1862
Owensboro, KY 42302
(502)926-4781
A total receivables management package for medical

offices that can satisfy the requirements of a single-doctor private practice, a multi-doctor practice, or a general medical clinic. The primary functions of the package support the generation of patient statements and third-party insurance claim forms preparation. The system manages receivables, tracking productivity and aging open accounts, and provides flags and messages to aid collection, and provides for medical analytical abilities using CPT and ICD-9 codes.

INTERNATIONAL CLINICAL LABORATORIES
Booth #90

135 E. Maxwell St.
Lexington, KY 40508
(606)255-3676
International Clinical Laboratories, Inc. (ICL) is a full service reference laboratory offering routine as well as specialized analysis in the disciplines of chemistry, endocrinology, toxicology, immunology, microbiology, immunohematology, clinical microscopy, serology and hematology. Dedicated to providing diagnostic services of the highest quality, ICL's team of professionals exhibit expertise from all areas of the laboratory.

JEWISH HOSPITAL—SKYCARE, INC. **Booth #59**
217 E. Chestnut Street
Louisville, KY 40202
(502)587-4788

KENTUCKY ARMY NATIONAL GUARD **Booth #39**
Boone National Guard Center
Frankfort, KY 40601-6168
(502)564-8478

KENTUCKY MEDICAL INSURANCE COMPANY
Booth #34

P.O. Box 35880
Louisville, KY 40232
(502)459-3400
Kentucky Medical Insurance Company, organized by the Kentucky Medical Association, is a professional liability insurance company owned by physicians, run by professionals, with physician input in all areas in which there is need of physician expertise. We welcome the opportunity to discuss the advantages and benefits represented by our program of coverage.

KENTUCKY MEDICAL MANAGEMENT & COMPUTER OPERATIONS, INC. **Booth #95**
3532 Ephraim McDowell Drive
Louisville, KY 40205
(502)451-2095
Kentucky Medical Management & Computer Operations, Inc. markets Digital hardware (#2 manufacturer in the world) and one of the most comprehensive business and clinical software packages in the state. Practice management services include on site evaluations and recommendations on all facets of a medical office. They are available on hourly, daily, weekly and ongoing bases. KMCO can support the smallest to the largest medical practice in the state.

KENTUCKYSAFE **Booth #104**
11720 Main Street
Middletown, KY 40243
(502)245-2832

KMA INSURANCE AGENCY, INC. **Booth #33**
P. O. Box 35880
Louisville, KY 40232
(502)459-3400
KMA Insurance Agency, Inc., formed by the Kentucky Medical Association offers a variety of insurance products specifically designed for physicians, such as Office Protection, Worker's Compensation, Homeowners, Automobile, Office Overhead, Life, Disability and other types of insurance. Stop by and see what we can do for you. We welcome your visit.

KMA PHYSICIANS FINANCIAL SERVICES FEDERAL CREDIT UNION **Booth #96**
Suite 166, Medical Towers South
Louisville, KY 40202
(502)581-1335

KNOLL PHARMACEUTICAL COMPANY
Booth #64

30 N. Jefferson Road
Whippany, NJ 07981
(201)887-8300

LEDERLE LABORATORIES **Booth #45**
1800 Valley Road
Wayne, NJ 07470
(201)831-7077
Lederle introduces MAXZIDE™ TRIAMTERENE 75mg/HYDROCHLOROTHIAZIDE 50mg. Maxzide is the replacement for the less bioavailable triamterene/hydrochlorothiazide. Maxzide is superior in bioavailability. Maxzide provides optimal absorption of the prescribed dose of 50 mg hydrochlorothiazide, optimal triamterene potassium-sparing action for 50 mg hydrochlorothiazide, once-a-day dosage, and an economical advantage. PIPRACIL® is an antibiotic which exerts its bactericidal activity by inhibiting both septum and cell wall synthesis.

A. P. LEE AGENCY, INC. **Booth #42**
631 Lincoln Federal Bldg.
Louisville, KY 40202
(502)583-1888
Disability income coverage since 1939. We now have more realistic monthly benefits in both disability income and office expense programs. The individual contract provides "your occupation" coverage at group rates. Since we're as near as your phone, the claim services is second to none.

LEXINGTON COMPUTER SERVICE, INC.
Booth #84

1412 North Broadway
Lexington, KY 40505
(606)255-9518
The "GROUP MEDICAL SYSTEM" is run on the IBM

System 38 mainframe computer linked with a terminal or personal computer in your office. Regardless of practice size, you will have at your discretion immediate, internal control of patient information, productivity, insurance billing, and credit information. The system allows you to have continuous state of the art equipment and a medical billing system that offers flexibility to accomodate each physicians specific practice needs.

ELI LILLY AND COMPANY **Booth #31**
Lilly Corporate Center
Indianapolis, IN 46285
(317)261-2554
You are cordially invited to visit the Eli Lilly and Company exhibit. Our sales representatives in attendance will welcome your questions about our pharmaceutical products. Our featured products are HUMULIN® and CECLOR®.

MARION LABORATORIES, INC. **Booth #23**
10236 Marion Park Drive
Kansas City, MO 64137
(816)966-5000
We are proud to be in attendance again this year, and hope you will stop by and let our representatives answer your questions about any of our fine pharmaceutical products. Featured will be CARDIZEM® (diltiazem HC1) our exciting calcium channel blocker, and CARAFATE® (sucralfate) unique, non-systemic drug for the treatment of ulcer.

MEAD JOHNSON NUTRITIONAL DIVISION
Booth #53
2404 Pennsylvania Avenue
Evansville, IN 47721-0001
(812)426-6660
We cordially invite you to visit the Mead Johnson Nutritional Division exhibit and meet our local representatives who welcome the opportunity to discuss products and services of interest to you. Featured will be ENFAMIL, PROSOBEE, pediatric vitamins, adult nutritionals and Naturacil™.

McKAY REED CO. **Booth #3**
620 So. 3rd Street
Louisville, KY 40202
(502)584-2161

THE MEDICAL PROTECTIVE COMPANY
Booth #51
P. O. Box 15021
Ft. Wayne, IN 46885
(219)485-9622
The Medical Protective Company provides unexcelled protection in any claim for damages based on professional services rendered or which should have been rendered. The Company's experience from the successful handling of over 145,000 claims during 86 years of Professional Protection Exclusively is unparalleled in the professional liability field.

MEDICAL PUBLISHERS REPRESENTATIVES, INC.
Booth #58
2223 Pompano Avenue
Cincinnati, OH 42515
(513)733-3292

MERCK SHARP & DOHME **Booth #4**
W35-7
West Point, PA 19486
(215)661-6789
Merck Sharp & Dohme cordially invites you to visit their exhibit featuring several products from their extensive line of pharmaceuticals. Representatives in attendance will be pleased to answer any questions you may have. Inquiries about our professional, informational, and educational services are welcomed.

MERRELL DOW PHARMACEUTICALS Booth #100
1304 Ridge Road
Carmel, IN 46032
(317)848-9333
Merrell-Dow Pharmaceuticals, manufacturers of Lorelco,® (Probucol) for the treatment of Hyperlipidemia; Nicorette® (Nicotine resin complex) as an adjunct to a smoking cessation program; and Seldane® (Terfenadine) the first antihistamine to work selectively on peripheral H1 receptors, welcomes you to the 135th Annual Meeting of the Kentucky Medical Association. We cordially invite you to visit our exhibit booth during the course of the meeting.

MIDSOUTH WEALTH PLANNING, INC. **Booth #68**
444 South Fifth Street
Suite 200
Louisville, KY 40202
(502)584-3110
Midsouth Wealth Planning, Inc., is a Registered Investment Advisor offering total financial planning services for a fee. The plans include an in depth estate plan which analyzes individual estate settlement costs, liquidity needs, and asset distribution. The most comprehensive plan is a total financial plan which includes an assessment of income taxes, cash flow conditions, estate analysis, and the impact of these on a client's objectives. A total line of tax advantaged investments is offered through Integrated Resources Equity Corporation.

MILES PHARMACEUTICALS **Booth #19**
400 Morgan Lane
West Haven, CT 06516
(203)934-9221

MULTIPAGE, INC. **Booth #86**
1930 Bishop Lane, Suite 131
Louisville, KY 40218

NATIONAL HEALTH LABORATORIES, INCORPORATED **Booth #71**
634 S. Floyd Street
Louisville, KY 40202
(502)585-5101
National Health Laboratories, Incorporated (NHL) offers complete clinical and anatomical laboratory services to area physicians, hospitals, clinics, and other medical facilities. Locally, N.H.L. offers these services through multiple laboratory locations. Each laboratory is under the direction of a board certified pathologist. N.H.L.'s booth will highlight its capabilities in the areas of rapid electronic test result delivery, state of the art technology and reliable local service.

NATIONWIDE COLLECTION CORPORATION **Booth #103**
963 Baxter Avenue
Louisville, KY 40204
(502)458-9587
Visit our booth for an explanation and illustration of how we can collect your accounts the way YOU want them collected. Nationwide is fully computerized, so we can provide our clients with "up-to-the-minute" information at their request. Samples of our computerized reports will be available for your inspection. Be sure to pick up a copy of our brochure on collection tips for professional credit grantors.

OLYMPUS CORPORATION **Booth #102**
19645 Progress Drive
Strongsville, OH 44136
(216)572-1500
We will be showing all the new generation fiberscopes. The upper GI scopes, the Colonscopes, Bronchoscopes will be at the booth. The Olympus Flexible Sigmoidoscope for the office, both the 35 CM and 60 CM will be at the booth. Olympus Endoscopes are the worlds best known brand—"Progress Through Precision," is our motto! Please stop at the booth and say "HI"!

ORTHO PHARMACEUTICAL CORPORATION **Booth #21**
Route 202
Raritan, NJ 08869
(201)524-2343
Ortho Pharmaceutical Corporation will present the most complete line of medically accepted products for the control of conception.The ORTHO-NOVUM* brands, which are the country's most frequently prescribed oral contraceptives will be on display. The first tri-phasic oral contraceptive, ORTHO-NOVUM 7/7/7, will be featured. Also featured will be a wide variety of educational aids and gynecological therapeutic products.

OUR LADY OF PEACE HOSPITAL **Booth #65**
2020 Newburg Road
Louisville, KY 40232
(502)451-3330 Ext. 320
Our Lady of Peace Hospital, An American Healthcare Management, Inc., facility offers a comprehensive multidisciplinary approach to treating adolescents and adults with psychiatric, emotional or chemically related problems. Recognized for excellence in training, research, and patient care, Our Lady of Peace offers programs in substance abuse, youth treatment, and general psychiatric services. Specializing in short term acute care, Our Lady of Peace Hospital is a 416 bed facility located at 2020 Newberg Road, Louisville.

PARKE-DAVIS **Booth #83**
201 Tabor Road
Morris Plains, NJ 07950
(201)540-3182
We invite you to visit the Parke-Davis Booth where our Sales Representatives welcome the opportunity to discuss and assist you regarding Parke-Davis products. We hope you will join us.

PROFESSIONAL MANAGEMENT SERVICE **Booth #93**
401 East McMillan
Cincinnati, OH 45206
(513)559-7600
Professional Management Service offers the newest in hardware and software technology for Medical Practice Management. We have over 25 years of experience in dealing with physicians and the management of their office. We provide complete on-site training and instruction to ensure an easy and smooth implementation of your system. Our software is completely menu-driven & one of the simplest to use on the market today.

RAINES SHOE HOSPITAL, INC. **Booth #92**
333 Frederica Street
Owensboro, KY 42301
(502)683-9933
Raines Custom Molded Shoes assure a precise 3-dimensional fit. The unique one-man construction process, from the casting to the finished shoes, provides for maximum pressure relief in needed areas and making use of remaining weight-bearing surfaces of the foot. All shoes are balanced and built with soft leather uppers and full leather linings. Great care is taken with each individual shoe that is made to custom order.

RANSDELL SURGICAL, INC. **Booth #80**
752 Barrett Avenue
Louisville, KY 40204
(502)584-6311

RIKER LABORATORIES, INC./3M **Booth #14**
225-1S-07 3M Center
St. Paul, MN 55144
(612)736-4192
Riker Laboratories, Inc./3M invites you to visit our display where our representatives will provide you with information on the following products: NORFLEX®, NORGESIC® AND NORGESIC FORTE® (orphenadrine citrates); DISALCID® (a unique salsalate); THEO-LAIR™ -SR® (a sustained release theophylline in 200,

250, 300 and 500 mg tablets); and our newly release pharmaceutical TAMBOCOR® (flecainide acetate).

A. H. ROBINS COMPANY **Booth #1**
1407 Cummings Drive
Richmond, VA 23220
(804)257-2563
You are cordially invited to visit the A. H. Robins exhibit and meet our representatives who will welcome the opportunity to discuss our products; Reglan and Micro-K.

ROCHE BIOMEDICAL LABORATORIES, INC. **Booth #22**
231 Maple Avenue
Burlington, NC 27215
(919)584-5171
Roche Biomedical Laboratories, Inc., will be exhibiting their brochures/literature as to their business offers to fit the needs of their customers in regard to Clinical Laboratory Testing Services.

J. B. ROERIG **Booth #16 & #17**
4360 Northeast Expressway
Doraville, GA 30340
(404)448-6606
Roerig will feature Glucotrol, (glipizide). Other products will be Cefobid, (cefoperazone). Geocillin, (oral carbenicillin). Spectrobid, (bacampicillin). Sinequan, (doxipen). Navane, (thiothixine). Current literature will be available. We welcome your inquiry. Roerig will be represented by Hugh Runner, Felix Holliday, Gary Underwood, Ray Tew, Jim Michael, and Jim Morgan.

WILLIAM H. RORER, INC. **Booth #18**
500 Virginia Drive
Ft. Washington, PA 19034
(215)628-6000
WILLIAM H. RORER, INC., is pleased to be part of this medical meeting and welcomes your visiting our exhibit. Representatives are available and will discuss with you pharmaceutical specialties manufactured by Rorer: ASCRIPTIN®, ASCRIPTIN® A/D, MAALOX®, MAALOX® PLUS, MAALOX® TC, EMETROL®, PERDIEM®, PERDIEM® PLAIN, SLO-PHYLLIN®, SLO-BID™, FEDAHIST®, AZMACORT™, NITROL®, LEVSIN®, AND LEVSINEX™.

ROSS LABORATORIES **Booth #37**
625 Cleveland Avenue
Columbus, OH 43216
(614)227-3333
Ross Laboratories is pleased to share our choice of infant Nutritionals. We will be featuring Similac, Similac With Iron and Similac with Whey. Other products are Isomil, Isomil SF and Advance. We will also be sharing our service and educational items.

SANDOZ PHARMACEUTICALS **Booth #32**
59 Route 10
East Hanover, NJ 07936
(201)386-8167
Sandoz Pharmaceuticals invites you to stop by our exhibit where our representatives will be pleased to provide information on our products or on educational material that we have available.

W. B. SAUNDERS COMPANY **Booth #89**
West Washington Square
Philadelphia, PA 19105
(215)574-4910
W. B. Saunders Company, the world's largest Health Science Publisher, will be featuring many new titles at our display including: Rakel: CONCURRENT THERAPY 1986; Wyngaarden & Smith: CECIL TEXTBOOK OF MEDICINE, 17th ed; Braude: INFECTIOUS DISEASES AND MEDICAL MICROBIOLOGY, 2nd ed; Smith & Thier: PATHOPHYSIOLOGY, 2nd ed. Please stop by our display.

SCHERING CORPORATION **Booth #52**
7106 Gunpowder Court
Prospect, KY 40059
(502)228-3039

CLAYTON L. SCROGGINS ASSOCIATES, INC. **Booth #91**
200 Northland Boulevard
Cincinnati, OH 45246
(513)771-7070

SEARLE PHARMACEUTICALS INC. **Booth #73**
P.O. Box 5110
Chicago, IL 60608
(312)470-6839
You are cordially invited to visit the SEARLE booth where our Representatives will be happy to answer any questions regarding SEARLE products. Featured will be information on ALDACTAZIDE®, ALDACTONE®, CU-7™, TATUM-T™, DEMULEN®, CALAN™, FLAGYL-IV™, NITRODISC™, NORPACE® CR, THEO-24™, and other products of interest.

SMITH KLINE & FRENCH LABORATORIES **Booth #5**
P. O. Box 7929
Philadelphia, PA 19101
(215)751-7261
Our exhibit will feature TAGAMET® (brand of cimetidine) and DYAZIDE®, our trusted potassium-sparing oral diuretic/antihypertensive. Professional Sales Representatives will be available to answer questions and provide information on our products and service.

SOUTHERN MEDICAL ASSOCIATION **Booth #57**
P. O. Box 190088
Birmingham, AL 35219
(800)423-4992
Southern Medical Association will have information available on the advantages of membership, such as Dial Access, Video Access, Regional Postgraduate Conferences, Seminars, the Annual Scientific Assembly, and the SOUTHERN MEDICAL JOURNAL. Also, material will be available on other benefits to members: the IRA, Retirement and Insurance Programs, Universal Life, Research Project Fund, Loans and Scholar-

ships, Hyatt Hotels Corporate Rate, the gold MasterCard, and the Physicians' Purchasing Program.

E. R. SQUIBB & SONS **Booth #48**
P. O. Box 4000
Princeton, NJ 08540
(609)921-4623
E. R. SQUIBB & SONS has long been a leader in the development of therapeutic and diagnostic products for the prevention, detection and treatment of diseases. You are cordially invited to meet our representatives who will be available at our exhibit to discuss our full line of health care products.

STUART PHARMACEUTICALS **Booth #60**
6060 Primacy Pkwy. #349
Memphis, TN 38119
(901)683-2993

THOMSON McKINNON SECURITIES, INC. **Booth #25**
1600 Vine Center
Lexington, KY 40507
(606)259-0567 or (800)432-9309
Thomson McKinnon offers educational literature and video presentations on retirement programs, employee benefit plans, use of independent money managers, tax advantaged investments and sources of investment education.

UNITED STATES ARMY MEDICAL DEPARTMENT **Booth #61**
1900 Half Street, S.W.
Washington, D.C. 20324-2000
(202)475-1079

UNITED STATES NAVY **Booth #30**
600 Federal Place
Louisville, KY 40202
(502)582-5174
The United States Navy presents a slide show featuring your Navy under sea, at sea, in the air and ashore. Information on the viable and challenging alternatives to private practice will also be available.

THE UPJOHN COMPANY **Booth #26**
7000 Portage Road
Kalamazoo, MI 49001

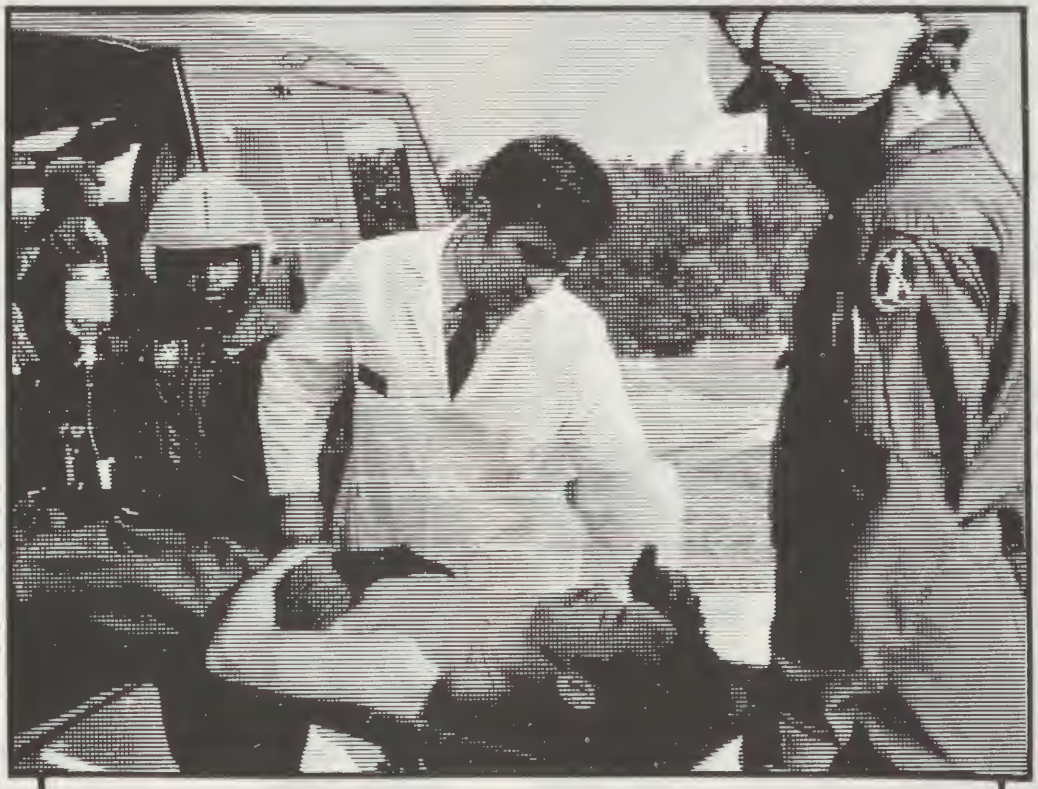
USV LABORATORIES **Booth #2**
303 South Broadway
Tarrytown, NY 10591
(914)631-8500

WALLACE LABORATORIES **Booth #87**
Half Acre Road, P. O. Box 1
Cranbury, NJ 08512
(609)655-6143

SCIENTIFIC EXHIBITORS

1. **CERVICAL DISC DISEASE: A COMPARISON STUDY OF 500 CASES**
   J.J. Guarnaschelli, M.D. and A.J. Dzenitis, M.D., Louisville
2. **MOHS' CHEMOSURGERY FOR SKIN CANCERS**
   Joseph W. Buecker, M.D., Lexington
3. **CO^2 LASER IN DERMATOLOGY**
   Joseph W. Buecker, M.D., Lexington
4. **PELVISCOPIC SURGERY—USING THE LOOP LIGATURE**
   Ronald L. Levine, M.D., Louisville
5. **RADIOLOGY OF THE OCCUPATIONALLY INJURED HAND**
   William Joule, M.D., Joseph G. Whelan, Jr., M.D., Peter Herman Wayne, III, M.D., Anthony K. Duncan, M.D., Jeri P. Irwin, M.D., Morton Kasdan, M.D., and Thomas Harter, M.D., Louisville
6. **TUMORS OF THE THYMUS GLAND**
   Sibu P. Saha, M.D., Porter Mayo, M.D., Graydon A. Long, M.D., and R. Daley Goff, Jr., M.D., Lexington
7. **DIAGNOSING AND REPORTING CHILD ABUSE**
   City of Louisville Crime Commission, Louisville

PHYSICIANS, A WEEKEND WITH THE RESERVE ISN'T JUST ANOTHER DAY AT THE OFFICE.



It's not just different in the Army Reserve, there are opportunities to explore other phases of medicine, to add knowledge, and to develop important administrative skills. There are enough different needs to fill right in your local Army Reserve unit to make a weekend a month exciting and rewarding.

Explore the possibilities. Call our officer counselor:

USAR AMEDD Procurement
US Army Reserve Center
Gast Boulevard
Louisville, KY 40205
(502) 454-0481/0482

ARMY RESERVE. BE ALL YOU CAN BE.

The McDowell/Crawford Ball will be held Sunday, September 29, 1985 at the Galt House, Louisville 6 p.m. Archibald Room

Proceeds will be used to support the Ephraim McDowell House in Danville, KY. Contributions are tax deductible.

Invitations and RSVP cards to this black tie affair will be mailed in early August.



The Imex Pocket-Dop II Probes The Possibilities

The Pocket-Dop II is the first hand-held doppler to offer you the convenience and versatility of interchangeable probes. Now one small instrument can be instantly used in over 40 applications.

- **5 MHz and 8 MHz** probes for vascular applications
- **2 MHz and 3 MHz** probes for obstetrics

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OUTSIDE OHIO 1-800-543-0295

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

EXCERPTS FROM A SYMPOSIUM
"THE TREATMENT OF SLEEP DISORDERS"[8]

"...highly effective for both sleep induction and sleep maintenance"

Sleep Laboratory Investigator
Pennsylvania

"...onset of action is rapid...provides sleep with no rebound effect to agitate the patient the following day"

Psychiatrist
California

"...appears to have the best safety record of any of the benzodiazepines"

Psychiatrist
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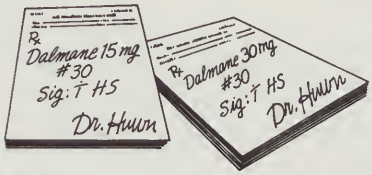
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Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

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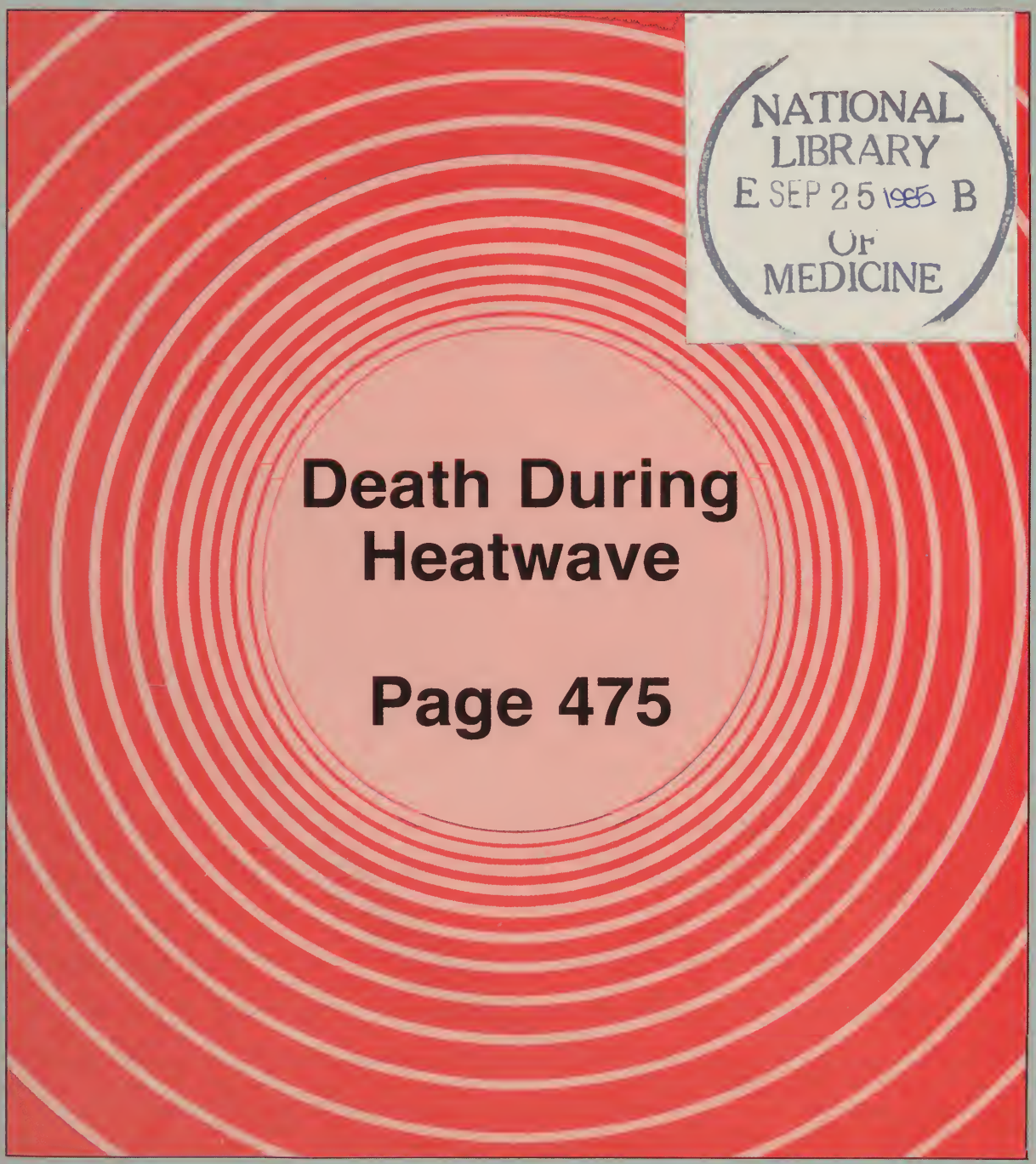
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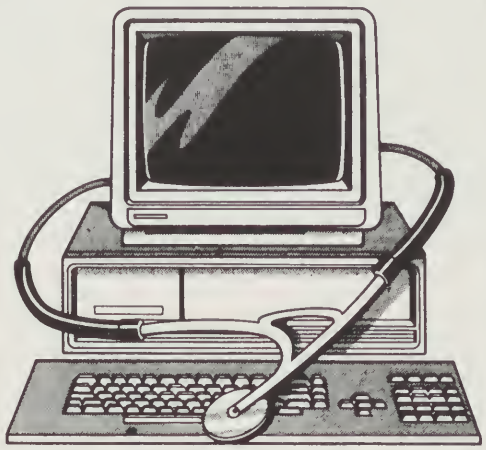
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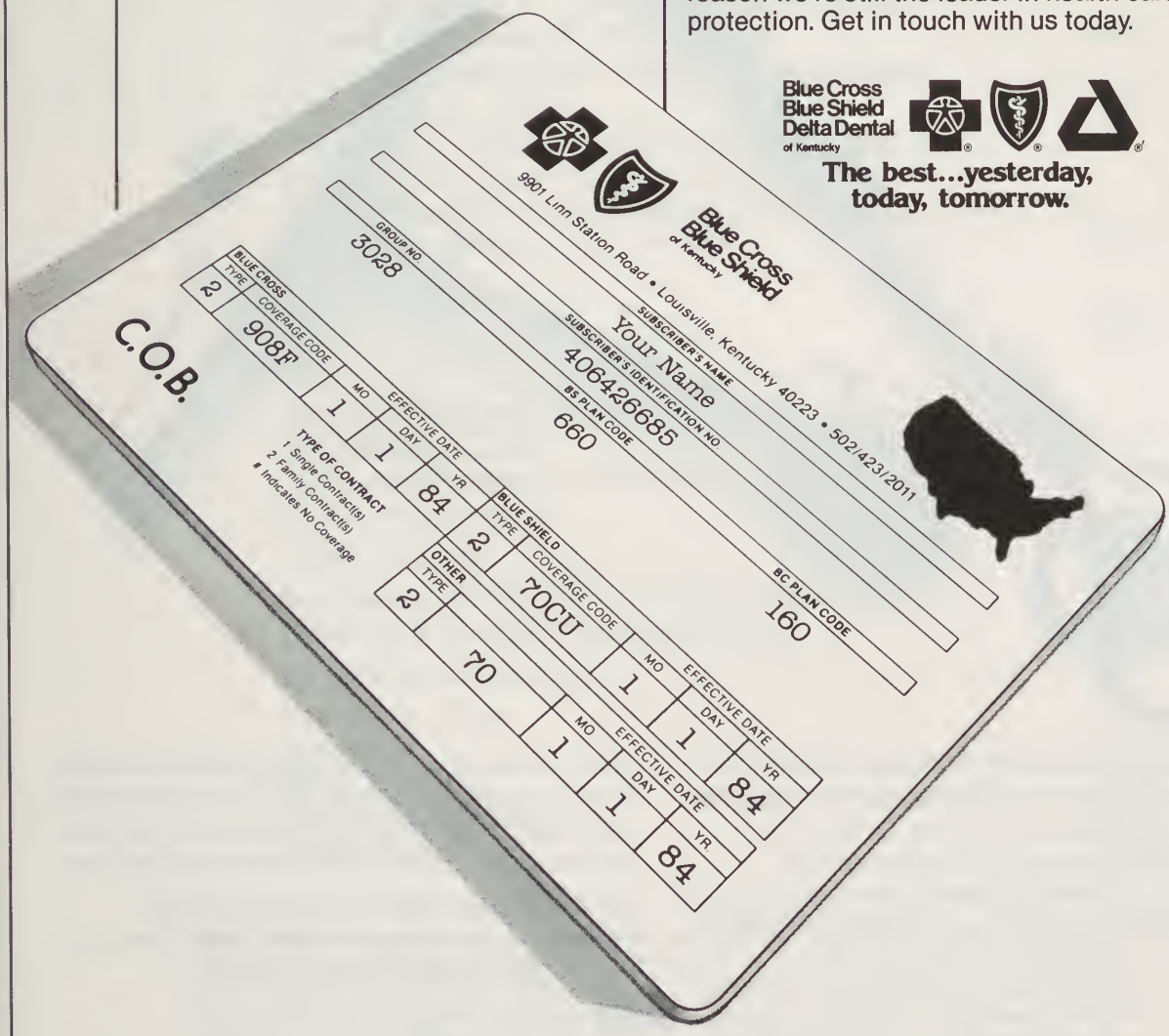
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PRESIDENT'S PAGE



"First of all, do no harm." The first law of therapeutics is known to us all. It has been applied to specific treatments and individual patients in the past.

As I write my last page, I feel a responsibility to state my views about what organized medicine's role should be in a changing environment of medicine.

Previous pages have dealt with what changes were occurring and our need to study them. I have addressed our past and the need to preserve our heritage. Now, we must look at where we're headed and our need to deal with it.

Physicians have been accused of being too concerned, even paranoid, when threatened with change. I think it's in our nature. I call it sensitivity. We have been reared in an environment where we are encouraged to make strong relationships with our patients. When that relationship changes we **are** sensitive to it.

For five decades organized medicine has been sensitive to government and its intrusions. But in the last five years, it is corporations that we have come to respect. It is clear that there are a lot of clever people who are students of physician behavior.

For this reason, we have a variety of plans which change and control the way we give care. Our recent studies at the KMA show that at least 20 plans have arisen in Kentucky or crossed our borders into it. These vary from "homegrown" to franchised. It is our estimate that this activity is similar to the computer industry two years ago when there were many entrepreneurial efforts. Because many ventures are undercapitalized, one would expect consolidation with larger companies acquiring smaller ones and their patients. Thus, over the shortfall the companies with larger assets able to borrow large amounts should do very well in garnering the "market" at the expense of small efforts.

What does this mean? It potentially means that a good deal of the health care in the country may be sold and delivered by a few large corporations. Because many of the newer plans cover office visits and procedures, a much greater portion of health care will be included.

Why does it matter? It matters because many of the pro-competitive plans are just that. They feature gatekeeper concepts that make physicians compete among themselves for dollars which can stay in a pool to be either used for profit or distributed for surgical care. They increase profitability to the physician if the patient gets less hospital care.

Why should we worry? I don't think we have to if we behave in the way we were trained. But if the entire system of medicine swings to a material concept from cradle to grave, then we could become an amalgamation

of technicians functioning as a union. That's why we must continue to talk of matters such as indigent care and quality of care.

It will be incumbent on physicians as a group to remain together to blow the whistle when any entity, intended or accidental, compromises the patient and our country's system of care.

The KMA has an excellent potential to do what we need. The camaraderie of our members I have experienced this year, the experience and wisdom of our veteran staff, plus the potential for leadership in our board and committees, portend good.

Therefore, our duty as an association will be to see that the delivery systems in which we function, first of all, do no harm. It will require monitoring and reporting. We will need legendary diplomacy in our deliberations. If we can do this, I think we rightfully will regain that place in the affections of our fellow citizens as a group that we have always occupied as individuals.

My thanks to you all for the opportunity to serve as your president.

I will close with a famous statement made by a member of the Bar.

Charles C. Smith, Jr., M.D.
KMA President

"There are men (sic) and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization."

Robert Louis Stevenson
1850-1894

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INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed.

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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Risk Factors for Death During a Heat Wave

CHERI WEEMS, M.D.
WILLIAM OLSON, M.D.
GEORGE R. NICHOLS, II, M.D.

Thirty-seven people died of heat stroke in the July 1983 heat wave of Louisville and Jefferson County, Kentucky. Information from this retrospective study was gathered from hospital records, coroner and autopsy reports, and from interviews with relatives of the deceased individuals. Confirmation from the weather bureau revealed a correlation of the dates of the deaths with the severity of the heat wave. Data revealed a positive correlation of an increased susceptibility to heat stroke with age, alcoholism, obesity, hypertension, diabetes, and neurological illness. The number of deaths increased significantly with age as 92% were greater than 50 years of age. Regarding medical illnesses, 66% were hypertensive, 34% were obese, 28% were alcoholic, 22% were diabetic, and 22% had a neurological problem. Forty-seven percent of the victims had one of these problems, and 44% had between two to five of these particular illnesses. In addition, specific types of medications implicated include neuroleptics, antihypertensives, and oral hypoglycemics. Data also revealed that 90% were of low socioeconomic status and 78% lived alone. Health care providers should be aware of the increased susceptibility to heat stroke among the elderly, the poor, those patients with certain illnesses, and those patients taking certain medications.

Heat stroke results from exposure of the entire body to extremely high temperatures and/or an inability to dissipate heat generated by endogenous metabolic processes. Compensatory mechanisms fail leading to a generalized vasodilation, sequestration of large volumes of blood and a reduction in blood volume. Disruption of these mechanisms by certain conditions and medications predisposes a specific population of patients to heat stroke. The Louisville heat wave of July 1983 claimed 37 lives attributable to heat stroke/hyperthermia. Review of the medical records of each of these individuals enabled us to look specifically at each risk factor and the danger of multiple risk factors.

Methods

Identification of the heat stroke victims was provided by the Jefferson County Coroner's office. All but one of the 37 victims were either found dead at their home or were pronounced dead upon arrival at a Louisville hospital. The one exception was admitted to a hospital for treatment of hyperthermia but died soon after admission. Hospital records of past and recent hospital visits, outpatient clinic records, and autopsy reports with toxicology screens provided such information as age, weight, illnesses, and current medications. Attempts were made to contact relatives and/or close friends of those patients by both letter and telephone. Information collected from these sources include socioeconomic status, condition 24 hours prior to death, whether the deceased had cooling equipment, and whether the deceased lived alone at the time of death. Confirmation of the current illnesses and medications was also made at this time. Six of the heat stroke victims had no living family members or friends that could be located and area hospitals had no record of these people. Therefore, these individuals were not included in the calculation of the illnesses and medications as risk factors. Data provided by the coroner's office, however, allowed them to be included in

TABLE 1
DIVISION BY AGE

Age Categories	No. of Deaths	Percentage
0–49 years old	3	8%
50–59 years old	4	11%
60–69 years old	11	30%
70–79 years old	8	22%
80– years old	11	30%

TABLE 2
DIVISION BY SEX AND RACE

Sex	Race	No. of Deaths	Percentage
Females	White	11	30%
	Black	12	32%
Males	White	10	27%
	Black	4	11%

calculating the statistics for age, sex, and race (Tables 1 & 2).

Louisville weather information was obtained from the National Weather Service at Standiford Field (1020 Standiford Lane). This agency provided the definition of a heat wave as being a period of abnormal and uncomfortable hot, humid weather, and confirmed the presence of a heat wave during July 1983. Socioeconomic status was determined by the individual's annual income which was provided by relatives. Individuals were divided into two categories—those with an income of greater than $10,000 per year and those earning less than $7,000 per year.

Results

Medical examiners concluded that 37 people died in July 1983 of heat stroke. All of these victims were either found dead at home or pronounced dead upon arrival at the hospital with the exception of one person. Therefore, the diagnosis of heat stroke death was based upon the circumstances in which the body was found and by exclusion of any other cause of death based upon examination and autopsy reports.

Concerning weather information, the National Weather Service provided daily temperatures for July 1983 and the number of degrees above normal for that day. As can be seen by Table 3, 95% of the patients died within a six-day range between July 19-24. Temperatures during this period ranged from 91° to 102° F. The temperature for these days averaged 10 degrees above normal temperature for this time of year. In addition, rainfall for this period was extremely low, approximately 3.11 inches below normal. These extreme temperatures and humidity along with the closed housing conditions and inadequate cooling equipment led to temperatures within these dwellings to sometimes greater than 110° F. The two people that did not die within this six-day period died on days when the daily high temperature averaged 4° above normal, and the high temperature recorded for both days was 92° F.

TABLE 3

Date Jul '83	High T°	Low T°	Ambient T°	No. of Deaths Due to Heat Stroke	
1	92	73	83		
2	92	71	82		
3	84	71	82		
4	91	71	81		
5	84	67	76		
6	75	55	65		
7	79	55	67		
8	85	58	72		
9	88	59	74		
10	90	66	78		
11	92	71	82		
12	93	70	82		
13	94	72	83		
14	92	75	84	1	
15	93	74	84		
16	93	73	83		
17	94	75	85		
18	95	73	84		
19	97	75	86	1	
20	99	75	87	2	
21	100	80	90	10	95% of
22	102	80	91	7	Deaths
23	102	79	91	10	Due to
24	91	75	83	5	Heat
					Stroke
25	85	91	78		
26	89	66	78		
27	92	68	80	1	
28	94	72	83		
29	95	71	83		
30	95	69	82		
31	96	72	84		

Persons older that 50 years of age accounted for 92% of the heat stroke deaths. Eleven percent of the victims were between 50-59 years of age and 30% were between 60-69 years. Those people between 70-79 years of age accounted for 22% and the remaining 30% were 80 years or older. The average age of female victims was 73 years; males was 65 years of age. Heat stroke incidence appeared to be independent of race as 43% were black and 57% were white. Race and sex can be further defined into the following categories: white males (27%), white females (30%), black males (11%), and black females (32%).

Heat stroke death rates were increased among those people of low socioeconomic status. This was defined as a person with an annual income of less than $7,000 per year. Ninety percent of the population that died of heat stroke in July 1983 were of low socioeconomic status. Therefore, those individuals of low socioeconomic status are at a greater risk of dying from heat stroke as these people are more likely to have inadequate cooling systems and more of these individuals lived alone.

From data concerning medical illnesses we determined that the following illnesses were of increased significance among the deceased: hypertension, diabetes, obesity, alcoholism, and neurological illness. Hypertension was found in 66%, diabetes in 22%, obesity in 34%, alcoholism in 28%, and neurological illness in 22%. Forty-seven percent of the victims had one of these illnesses, 13% had two of the illnesses, 28% had three problems, and 3% had five of the problems. Thus, 44% had between two to five of these specific illnesses. Only three of the individuals from this population, whose medical illnesses were known, had none of these problems.

Concerning known medications taken, the most frequently taken drugs included neuroleptics, oral hypoglycemics, and antihypertensives. Neuroleptics include phenothiazines, tranquilizers, benzodiazepines, and antidepressants, and were taken by 29% of this population. The diabetics maintained on oral hypoglycemics comprised 7% of the subjects, and antihypertensive medication was taken by 59%. At least 48% took only one of these types of medications while 22% took two types of the above drugs. Thirty percent were taking none of these three classes of drugs 24 hours prior to death.

Comments

This retrospective study of the July 1983 heat wave of Louisville, Kentucky, confirmed the presence of factors which make one more susceptible to heat stroke. The significant factors found among the 37 people that died at this time from heat stroke include age, socioeconomic status, certain illnesses and specific types of medications.

The average age of the heat stroke victims was 70.3 years and heat stroke is definitely a problem of the elderly. The mortality of heat stroke in the elderly is high and the majority of heat-related deaths occurs in the elderly. The aged are unable to compensate hemodynamically when heat-stressed. They are less likely to have the capacity to increase cardiac output adequately and to decrease systemic vascular resistance during heat stress.[1] Also, following exposure to increased temperatures, the elderly require a significantly greater time for the initiation of sweating.[2]

Data showed that 90% of this particular population was of low socioeconomic status. Several factors could help to explain the higher incidence in this group. For example, these people were less likely to have adequate cooling equipment and more of these individuals lived alone. In addition, this population was more likely to be unable to maintain routine health maintenance appointments and to quickly obtain assistance for outside sources.[3]

The medical illnesses which appeared in a significant number of this sample population include diabetes, hypertension, obesity, alcoholism, and neurological illness. Since heat loss and conservation depend largely upon the autonomic nervous system, any disruption in this system will alter the ability to compensate during heat stress. The pathway for transmitting information begins at the peripheral receptors, travels to the central nervous system for integration of afferent impulses and lastly excites autonomic efferent pathways.[4] Successful compensation depends largely upon the response of the cardiovascular system. This system must be able to adjust to the elevated circulatory demand by increasing the cardiac output. The elevated circulatory demand is caused by the initial cutaneous vasodilation during hyperthermia and secondly by the persistence of a reduction in total peripheral vascular resistance.[5] Although it is not exactly known where the dysfunction of the heat regulatory mechanism is located, any alteration by illness or medication of the autonomic nervous system can result in a disruption of these compensatory mechanisms.[6] A feature commonly seen among diabetics is dysfunction of the autonomic nervous system which may present as gastric atony, atonic bladder, impotence, or as sweating abnormalities. In a study by Olshan *et al* (1983), it was concluded that the baroreflex function was significantly abnormal in the diabetic patients. Furthermore, this was consistent with combined parasympathetic and sympathetic motor nerve dysfunction. Therefore, dysfunction of the autonomic nervous system and the inability to make the hemodynamic alterations makes the diabetic more prone to the development of heat stroke.[7] Hypertension has been shown by several community studies to be more prevalent in diabetic

patients and may accelerate diabetic complications.[8] Hypertension, especially if untreated, can lead to accelerated atherosclerotic changes and can end in organ damage such as cardiomyopathy, congestive heart failure, cerebrovascular accident and/or renal insufficiency.[9] Therefore, hypertension alone can lead to decreased ability of the body to adjust to stressful temperatures but if coupled with obesity, diabetes, or any other illness can lead to a severe ability to compensate.

Approximately one-third (34%) of the sample was obese at the time of death but there has been little research as to why the obese may be more susceptible to heat stroke. Although some believe that the obese are at increased risk due to excess subcutaneous insulation, recent evidence suggests that there is no abnormality of the autonomic nervous system in the obese.[10] Alcoholism was documented in 28% of this population, but no previous studies of the relationship between alcoholism and heat stroke could be found in the literature. Excessive alcohol intake is associated with a damaging effect on cardiac muscle, an increased vulnerability to cardiac arrhythmias, and an increased risk of cardiovascular problems, especially those associated with hypertension and cardiomyopathy, and neurological disorders. Therefore, chronic alcoholism not only causes deterioration of the cardiovascular system, but causes damage to many other organ systems as well. In addition, the mental deterioration that accompanies chronic alcoholism leads to disorientation, deterioration of personal care, and the inability to recognize life-stressing situations.[9]

Concerning the medications taken by these individuals, thiazide diuretics were among the most frequently used drugs. Thiazides function to reduce plasma and extracellular volume, thus decreasing cardiac output. Although cardiac output returns to normal during chronic therapy, peripheral vascularity decreases as a result of sodium depletion with a decrease in extracellular water and plasma volume.[11] Adverse effects of thiazides include hypokalemia, hyperglycemia, hyperuricemia, hyponatremia, hyperlipidemia, and azotemia. Although these effects may be tolerated in normal individuals, a crisis may result if they are complicated by another illness. In addition, special emphasis should be placed on the diabetic hypertensive patient because of the thiazide's ability to induce hyperglycemia and to decrease glucose tolerance during long-term therapy.[12]

Neuroleptic drugs include the phenothiazines, thioxanthines, dibenzodiazepines, butyrophenones, and others. Thus, phenothiazines are among the most widely used drug in medical practice and are primarily employed in the management of patients with serious psychiatric illnesses. Phenothiazines depress vasomotor reflexes mediated by either the hypothalamus of the brainstem with the net result being a centrally mediated decrease in blood pressure. This drug has significant α-cholinergic antagonistic activity as well as cholinergic blocking effects which may be demonstrated by decreased sweating. In a study by Sprung (1980), phenothiazines were suggested as a possible predisposing factor which lead to an inability to adjust to high ambient temperatures. The mechanism suggested was a disruption of the hypothalamic regulatory center.[13] Therefore, phenothiazines as well as other neuroleptic drugs lead to an impairment of one's sensitivity and ability to adapt to changes in environmental temperature.

Explanations of why certain factors as age, socioeconomic status, illness, and specific medications predispose one to heat stroke have been presented. In each individual, however, more than one and often times more of these factors were present at the time of death. It is only with awareness of this increased susceptibility to heat stroke among certain individuals that physicians and other health care providers can prevent the effects of this heat wave from recurring.

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From the Departments of Neurology and Pathology, University of Louisville, Louisville, KY 40292

Cerebral Resuscitation of Infants and Children

Guidelines for the Management of Acute Brain Failure

JOHN T. ALGREN, M.D.

Infants and children may suffer acute brain failure as a result of traumatic injury, hypoxic-ischemic injury, central nervous system infection, and toxic encephalopathy, eg, Reyes Syndrome. The objectives of cerebral resuscitation are the restoration of intracranial homeostasis and the normalization of extracranial organ system function in order to facilitate resolution of the primary disorder, promote healing of injured tissue, and avoid secondary brain insults. This paper reviews the general management of acute brain failure, with emphasis upon the management of traumatic injuries and hypoxic-ischemic encephalopathy.

Acute brain failure (ABF) in infants and children occurs as a result of a variety of acute cerebral insults and is responsible for serious morbidity as well as significant mortality.[1,2,3,4,5] Etiologies of ABF include traumatic injury, hypoxic-ischemic injury, intracranial hemorrhage, intracranial infections, and toxic encephalopathies such as Reyes Syndrome. Cerebral resuscitation is directed toward the restoration of intracranial homeostasis and the normalization of extracranial organ system function in order to prevent secondary brain injury and facilitate healing of injured brain tissue.

STABILIZATION OF EXTRACRANIAL ORGAN SYSTEM FUNCTION

Normalization of extracranial organ system function is essential to achieving intracranial homeostasis. Comatose patients are at risk to develop airway obstruction as well as other respiratory complications. Endotracheal intubation is generally indicated to avoid hypoxia, hypercarbia, respiratory acidosis and aspiration pneumonitis.[1,6] Furthermore, early intubation of patients at risk for increased intracranial pressure (ICP) enables therapeutic hyperventilation if it should become indicated. To avoid exacerbation of increased ICP, intubation should be performed in a controlled manner, utilizing sedation and paralysis (eg, thiopental and pancuronium bromide or succinylcholine) in order to avoid exacerbation of increased ICP.[1,7] Blind nasotracheal intubation is difficult in children and should not be attempted. Appropriate caution must be exercised if cervical spine injury may be present.

Mild hyperoxia ($PaO_2 > 100$ torr) may facilitate diffusion of oxygen through injured tissue, thereby reducing tissue hypoxia. Adequacy of ventilation should also be closely monitored. PCO_2 should be maintained in the range of 30-35 torr, unless further hyperventilation is indicated to reduce ICP.[7] In the absence of pulmonary disease associated with increased physiologic dead space, PCO_2 may be estimated by continuous end-tidal CO_2 ($ETCO_2$) monitoring.[1] Struggling or posturing by the patient may impair ventilation and increase ICP. This may be prevented by administering sedatives, eg, barbiturates or morphine sulfate, or paralytic agents, eg, pancuronium bromide.[7] The potential benefit of sedation or paralysis must be weighed against the need for accurate clinical monitoring of neurologic function.

Authors have cautioned against the use of high positive end-expiratory pressure (PEEP) or other ventilator modes which may elevate intrathoracic pressure and retard venous return from the head, thereby increasing ICP.[8,9] Frost,[10] however, reported that PEEP as high as 20cm H_2O, did not increase ICP or alter intracranial compliance. Nevertheless, in order to minimize adverse effects upon cardiovascular function and ICP, PEEP and positive-pressure ventilation should be adjusted to maintain satisfactory pulmonary function with the lowest effective airway pressure. "Prophylactic" PEEP should be started at low levels, eg, 2-4 cm H_2O.

TABLE I
OBJECTIVES OF CEREBRAL RESUSCITATION

Normalize Extracranial Organ System Function
- Patent airway; normal respiratory function; $PaO_2 > 100$ torr; PCO2 25-35 torr
- Normal blood pressure, perfusion; MAP 60-80 torr (depending upon patient's age)
- Hypertonic, normovolemic dehydration; Serum osmol 300 mOsm/L
- Avoid hyperthermia Temp 36-37 C
- Prevent struggling, posturing
- Maintain metabolic homeostasis

Restore/Maintain Intracranial Homeostasis
- Diagnose/remove mass lesions
- Control intracranial pressure ICP < 20 torr Reduce hyperemia Reduce edema
- Maintain cerebral perfusion CPP > 50 torr
- Provide substrate/oxygen for cerebral metabolism
- Control seizures
- Reduce cerebral metabolism

TABLE II
GUIDELINES FOR ICP MONITORING

Traumatic Brain Injury
- GCS ≤ 5
- GCS 6-8 and mass lesion with shift or deteriorating status

Reyes Syndrome
- Lovejoy Stage III or higher

Hypoxic-Ischemic Injury
- Optional
- GCS ≤ 5 and evidence of ↑ ICP

Normal cardiovascular function and perfusion of vital organs must be maintained. Hypotension resulting from hypovolemia should be corrected by the administration of an isotonic volume expander. Isotonic crystalloids, eg, Ringers Lactate, are acceptable; however, colloids, eg, 5% albumin, 5% plasma protein fraction, fresh frozen plasma, or blood, are preferred because less volume is generally required to restore adequate vascular volume.[7] Consequently, the risk of overhydration and increased cerebral edema formation is reduced.[11]

The volume and rate of infusion, which should be determined by the clinical situation and the response to fluid administration, usually ranges between 10-20 ml/kg, infused over 30-60 minutes. Hypotension which is unresponsive to adequate volume administration should be treated by infusing dopamine at an initial rate of 5-10 mcg/kg/minute. Monitoring of central venous pressure and/or pulmonary artery pressures is indicated for persistent or anticipated cardiovascular instability. Urine output is generally a reliable indicator of peripheral perfusion and should be maintained at 1 ml/kg/hr, or a minimum of 30-50 ml/hr, if the patient's weight exceeds 30 kg.

Fluid restriction coupled with the administration of osmotic diuretics has been the *sine qua non* of the management of cerebral edema. However, excessive reliance upon these modalities may result in severe hypertonic dehydration and compromise organ perfusion. The objective of fluid management is a state of mild hypertonic dehydration with a serum osmolarity of approximately 300mOsm/L.[13] Hypertonic dehydration results in a greater reduction in intracellular water than in extracellular water, thereby preserving vascular volume and organ perfusion. Initial intravenous fluid administration should be restricted to one-half to two-thirds of normal maintenance requirements.[3,12] Sodium chloride replacement should be adjusted to maintain serum sodium concentration in the high range of normal. Although glucose is required for cerebral metabolism, hyperglycemia should be avoided since it has been demonstrated to increase anaerobic metabolism and acidosis in injured brain tissue.[2] Serum albumin and oncotic pressure should be maintained in a normal range and polycythemia avoided because it increases blood viscocity and may further diminish perfusion of ischemic tissue.[7]

Measures should be taken to prevent increased muscle activity which may increase metabolic rate, elevate temperature and exacerabate increased ICP.[4] Seizures may be controlled by the administration of phenytoin or barbiturates, and hypertonia may be suppressed by partial or total paralysis (Table III).[4,7] Excessive response to external stimuli may be blunted by administering short-acting sedatives, eg, thiopental, 1-2 mg/kg IV, or morphine sulfate 0.05-0.1 mg/kg IV, or by the induction of barbiturate coma.[7] Procedures, eg, chest physiotherapy, suctioning, position changes, and bathing, should be minimized if the ICP increases despite appropriate sedation or paralysis.[9] Cooling blankets, acetaminophen, paralysis, chlorpromazine and sedation may be employed to facilitate temperature control and avoid hyperthermia.[7] Chlorpromazine may produce hypotension due to vasodilatation and should be used cautiously in the presence of hypovolemia or cardiovascular instability.

TABLE III

THERAPEUTIC INTERVENTION	GOAL	DOSES; COMMENTS
Oxygen	$PaO_2 > 100$ torr	
Intubation (controlled)	Patent airway	GCS < 7; caution: c-spine, aspiration
Ventilation; PEEP	PCO_2 25-35 torr; pH 7.35-7.55	Prefer $FiO_2 < .6$ + PEEP < 5cm H_2O
Optimize CV function R_x hypovolemia/vasodilation	MAP ≃ 60-80 torr; CPP > 50 torr Urine 1 ml/kg/hr or >30 ml/hr	 Colloid bolus 5-20 ml/kg Dopamine 5-10 mcg/kg/min
Fluid restriction	Serum Osmol 300 m0sm/L NA < 150 mEq/L	800-1000 ml/m^2/day-child; 60-80 ml/kg/day-infant D_5W1/4NS and KCl
CVP/PAP monitoring	Adequate preload + C.O.	Monitor PAP if pentobarbital used
Elevate HOB 30°	↓ venous sinus pressure ↓ ICP and ↑ CSF absorption	Head midline and upright
Hyperventilation	PCO_2 25 ± 3 torr	Vasoconstriction → ↓ CBV → ↓ ICP
Diuretics	↓ BV → ↓ CBV; ↓ CSF formation? ↓ extracellular water	Lasix ½-1 mg/kg IV Mannitol ¼-1 g/kg IV bolus
Monitor ICP	ICP ≤ 20 torr CPP > 50 torr	
CT Scan		Evaluate ventricles, cisterns, mass lesions, cerebral edema
Anticonvulsant Therapy	Control/prevent seizures and myoclonus	Valium: 0.1-0.3 mg/kg IV Phenytoin: load with 18 mg/kg (½-1 mg/kg/min) then 5-8 mg/kg/day Phenobarb: load with total of 20-50 mg/kg (usually 10 mg/kg/dose) then 5 mg/kg/day
Steroids (optional)	Stabilize membranes	Benefit unproven except for mass lesions Decadron: 0.5-1 mg/kg/day
Reduce Temp	T ≤ 37° C	Cooling blanket, acetaminophen
Paralysis	Stop posturing, struggling	Pavulon 0.02-0.08 mg/kg q 30-60 min
Barbiturate Coma	↓ metabolic rate; ↓ ICP	Pentobarbital for persistent ↑ ICP Loading dose: 10-25 mg/kg infused over 1-2 hrs Maintenance: 1-2 mg/kg/hr

INTRACRANIAL HOMEOSTASIS

Control of ICP is essential to the maintenance of cerebral perfusion and the prevention of cerebral herniation. Focal or diffuse brain edema occurs with most diseases which result in ABF and may contribute to neurologic dysfunction and increased ICP.[2,14] In addition, ICP may be increased by mass lesions, eg, tumors, intracerebral hematomas or abcesses, and by acute brain swelling due to cerebral hyperemia, acute hydrocephalus or cerebral edema. Successful treatment of ABF requires that sufficient nutrient blood flow be maintained to satisfy cerebral metabolic requirements and avoid secondary cellular energy failure. Specific management objectives include removal of mass lesions; reduction of cerebral metabolism; control of ICP; maintenance of adequate cerebral perfusion; provision of sufficient oxygen and glucose for cerebral metabolism.[14]

Pathogenesis of Cerebral Edema

Brain edema has been classified as vasogenic, cytotoxic or interstitial.[2,14,15] Vasogenic edema occurs as a result of an injury to the blood brain barrier, which increases capillary permeability and extracellular fluid volume. This type of edema is associated with tumors, abcesses, traumatic injuries, meningitis, infarction and hemorrhage. Cytotoxic cerebral edema results from cellular dysfunction which produces a loss in cell membrane potential and an associated increase in intracellular

sodium and water. Etiologies include hypoxic injury, meningitis and toxic encephalopathies. Interstitial brain edema is associated with acute hydrocephalus.

Traumatic brain injury in children may produce focal or diffuse injury with associated cerebral edema similar to that observed in adults.[1] In addition, children often develop increased ICP due to vasodilatation and cerebral hyperemia.[16] This process may produce severe intracranial hypertension but, when treated promptly with measures which reduce intracerebral blood volume, is associated with an excellent prognosis.[1]

Hypoxia and ischemia cause decreased ATP production and ultimately cellular energy failure.[2] Reduced sodium-potassium ATPase activity results in increased intracellular sodium and water and decreased cell membrane potential. In severe hypoxic-ischemic injury this initial insult is complicated by post-resuscitation hypoperfusion, increased concentration of intracellular, free oxidative radicals, a massive intracellular shift of calcium cations and the associated production of arachidonic acid and its metabolites, eg, thromboxane A2 and leukotrienes. The net result is an accumulation of cytoxic and vasospastic compounds which perpetuate tissue hypoperfusion and cellular injury.[14]

Following global hypoxic-ischemic injury, cerebral edema may range from mild to severe and appears to reflect the severity of neuronal damage.[2] The efficacy of aggressive cerebral resuscitation for patients who have sustained severe brain injury remains controversial. Conn, *et al*,[4] reported encouraging results with the use of phenobarbital coma in victims of cold water near-drowning. Bruce,[2] however, reported that at the Children's Hospital of Philadelphia, ICP monitoring is no longer performed for hypoxic-ischemic encephalopathy because aggressive control of ICP has not improved outcome. Nevertheless, many centers are investigating a variety of treatment modalities, eg, barbiturate coma with or without hypothermia and the administration of calcium antagonists.[17,18,19] Although some recent reports have been encouraging,[20,21] these therapeutic modalities must be regarded as experimental at this time. In contrast, in the management of Reyes Syndrome cerebral resuscitation augmented by barbiturate coma has been demonstrated to be effective in controlling cerebral edema and reducing morbidity and mortality.[5,22,23]

ICP Monitoring

Intracranial pressure may be monitored by inserting an epidural pressure monitor, a subarachnoid screw or an intraventricular drain.[2,24] The relative merits of each system have been reviewed.[24] A ventricular drain, although more invasive, does enable intermittent drainage of CSF for control of ICP. In most cases, a computerized tomographic (CT) scan of the head should be obtained to rule-out mass lesions or mid-line shift and to evaluate ventricular size and brain edema prior to insertion of an ICP monitor. Following traumatic injury, ICP monitoring is indicated in comatose children who have a Glasgow Coma Score (GCS) of five or less, or a GCS of six to eight associated with a mass lesion producing midline shift or a rapidly deteriorating neurologic status (Table II).[12]

The potential benefit of ICP monitoring should be considered for other etiologies of acute brain failure which may be associated with increased ICP. Intracranial pressure monitoring is indicated in advanced stages of Reyes Syndrome (Lovejoy Stage III or higher).[5,22] The value of ICP monitoring and the aggressive control of increased ICP following hypoxic-ischemic injury remains controversial[2,21] but may be appropriate for patients who have a GCS of five or less, signs of increased ICP, and evidence of cerebral edema by CT scan.[25] Intracranial pressure monitoring has also been reported to be beneficial in cases of meningitis associated with markedly increased ICP.[3,26]

Control of ICP and Cerebral Perfusion

As the volume of intracranial contents increases following acute injury, ICP rises and CSF shifts from the intracranial compartment to the distensible spinal subarachnoid space. Further elevation of ICP will eventually result in decreased cerebral perfusion and, ultimately, in cerebral herniation. Baseline ICP should be maintained below 20 torr (normal ICP < 15 torr) to assure adequate cerebral perfusion.[1,5,9,12]

Autoregulation of cerebral perfusion is impaired in injured brain tissue.[7,13] Consequently, perfusion of injured tissue is dependent upon the cerebral perfusion pressure (CPP), which is equal to the mean arterial pressure minus the ICP. The CPP should be greater than 50-60 torr in children.[13,27] A CPP of 40 torr is probably adequate for infants, although this has not been experimentally confirmed.[27] Mild hyperventilation may increase blood flow to injured tissue by producing vasoconstriction in regions of intact

autoregulation, thereby shunting flow to regions of maximum injury. Transient, mild systemic hypertension often occurs following cardiopulmonary resuscitation and may enhance microcirculatory blood flow by increasing the CPP. Moderate and severe hypertension should be avoided, however, as it may impair autoregulation of perfusion, increase ICP and increase the risk of intracranial hemorrhage.

Intracranial pressure may be reduced by removing mass lesions, reducing cerebral blood volume (CBV), decreasing intracranial CSF volume and decreasing cerebral edema. Elevation of the head of the bed 30 degrees while maintaining the head in an upright, midline position facilitates venous drainage from the head, thereby decreasing venous sinus pressure, CBV and ICP.[2] Hyperventilation produces vasoconstruction, thereby decreasing intracerebral arterial blood volume and ICP. Excessive hyperventilation ($PCO2 < 20$ torr) may produce cerebral ischemia and should be avoided. Reducing systemic hypertension and total blood volume also decreased CBV and ICP. Blood volume may be reduced by fluid restriction and the administration of diuretics, eg, furosemide and mannitol.[1,13] In patients who have cerebral hyperemia, hyperventilation and furosemide administration should precede mannitol infusion, which transiently increases blood volume, CBV and ICP.[12,13]

Osmotic diuretics such as mannitol effectively decrease extracellular cerebral water. The initial dose is usually 1 gm/kg infused intravenously over 20 minutes, followed by subsequent doses of ¼-½ gm/kg, adjusted according to the effect upon ICP.[6] Creation of a state of mild hypertonic dehydration by fluid restriction and diuretic therapy decreases intracellular water.[2] Steroids have been commonly used to reduce cerebral edema[1,4,5,12] because they are thought to stabilize membranes and decrease capillary leak and edema formation. Although steroid therapy has been demonstrated to be efficacious in reducing vasogenic edema associated with mass lesions such as tumors and abcesses, it has not been shown to be beneficial in other disease processes.[28]

Reduction of Cerebral Metabolism

Increased cerebral metabolism may lead to tissue acidosis and cellular energy failure. Body temperature should be maintained in a normal or hypothermic state to reduce cerebral metabolism. Seizure activity markedly increases neuronal energy requirements and tissue acidosis. Diazepam is the drug of choice for immediate control of seizure activity and should be followed by an anticonvulsant which has sustained activity. Phenytoin remains the preferred anticonvulsant in children and adults; however, because of phenytoin's short half-life in infants, phenobarbital may be a more effective anticonvulsant for this group of patients (see Table III for dosages)

Severe, refractory seizures may complicate hypoxic-ischemic injury as well as other types of ABF. Multiple anticonvulsants, eg, diazepam, phenytoin, phenobarbital, and paraldehyde, may be used in combination to control status epilepticus. Refractory status epilepticus may be treated by inducing barbiturate coma with phenobarbital or a continuous infusion of amobarbital, pentobarbital or thiopental.[4,7,29] Decerebrate posturing and myoclonic jerks may also complicate hypoxic-ischemic encephalopathy. Phenobarbital is particularly effective in controlling myoclonic activity.[2] As much as 50-60 mg/kg given in divided doses over 12-24 hours may be required to control severe myoclonic activity.[4]

When baseline ICP can not be maintained below 20 torr by these methods, barbiturate coma should be considered. In high doses barbiturates reduce cerebral metabolism and may act as free radical scavengers, thereby decreasing the deleterious effects of hypoperfusion. In addition, barbiturates appear to decrease ICP by producing cerebral vasoconstriction.[2,7] Pentobarbital coma can be initiated by administering a loading dose of 10-25 mg/kg, infused over a one to two hr period, followed by an infusion of 1-2 mg/kg/hr.[12] A serum concentration of 25-40 mcg/ml is usually effective. Initial dosage as well as subsequent dosage should be adjusted to provide adequate control of ICP while maintaining satisfactory systemic arterial pressure.

Pentobarbital may depress cardiovascular function, producing hypotension and circulatory insufficiency. It is therefore prudent to monitor pulmonary vascular pressure and cardiac output and to assure adequate vascular volume prior to initiation of this treatment.[1,3] If hypotension occurs, pentobarbital administration should be interrupted and the effective vascular volume restored by the administration of a colloidal volume expander. Calcium administration may transiently improve cardiovascular function. If these measures are ineffective, dopamine should be infused, starting at 5-10 mcg/kg/min, and titrating to achieve satisfactory cardiovascular function.

If possible, brain activity should be monitored during barbiturate coma, eg, by a continuous bipolar electro-

encephalogram or a cerebral function monitor. Barbiturate dosage may be increased until a "burst-suppression" pattern is observed.[1,3,7,13] Following 24-48 hours of stable ICP, barbituates may be discontinued, and other treatment modalities gradually weaned over several days as the acute phase of cerebral dysfunction resolves.

Conclusion

Optimal management of acute brain failure requires that all aspects of medical and surgical management be integrated so as to restore and maintain extracranial as well as intracranial homeostasis.[3] In the resuscitation of acutely ill or injured patients, clinicians must be cognizant of the initial and delayed effects of the patient's disease process upon the central nervous system. Resuscitative efforts and subsequent management must be directed toward the restoration of normal cardiovascular, respiratory and metabolic function; the control of acute brain swelling and ICP; the maintenance of optimal cerebral perfusion; and the control of cerebral metabolism. Through such efforts, the potential for recovery from acute brain failure will be maximized.

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Assistant Professor of Pediatrics, Chief, Critical Care Medicine, Department of Pediatrics, School of Medicine, University of Louisville, Louisville, Kentucky 40292

Experience with the Artificial Sphincter 800 in Patients with Severe Urinary Incontinence

James I. Harty, M.D. and Lonnie W. Howerton, Jr., M.D.

Over an 18-month period, six patients with severe urinary incontinence secondary to myelomeningocele, prostatectomy and abdominoperineal surgery have been implanted with the latest model of the Scott-Bradley-Timm artifical urinary sphincter, the AMS Sphincter 800™* - otherwise known as the AS 800. Successful results have been obtained in five of the six patients with no complications. Although the follow-up period is short ranging from six to 18 months, it is anticipated that the improved design of this sphincter will achieve better results than those obtained with earlier models.

Urinary incontinence can be a psychologically, socially and physically disabling condition. There are several different types of urinary incontinence, which may be classified depending upon the underlying etiology (Table 1). Of these, only severe forms of sphincteric and stress incontinence require surgical correction. Stress incontinence in females can usually be managed by standard surgical procedures with excellent results, although occasionally repeated failure may lead to a urological cripple who will require alternative treatment, such as an artificial sphincter. Sphincteric incontinence, on the other hand, is not assured the same high success rate as stress incontinence when native tissues, such as bladder or muscle slings, are used. For this reason, about 25 years ago, attention turned to the use of implantable artificial prosthetic devices to achieve continence.

Since the 1960s, several anti-incontinence prosthetic devices have been reported. Many of these prostheses have been plagued by low success rate, not being applicable to both sexes and being applicable for only certain types of incontinence. In 1973, Scott *et al* reported a new hydraulic device designated Artificial Sphincter 721.[1] This sphincter has undergone several improvements to the point where it is now the most reliable and successful artificial urinary sphincter. The latest model is the AS 800, which was introduced in 1983 (Fig. 1). A history of artificial prostheses for urinary incontinence is summarized in Table 2.[2-5]

The AS 800 consists of the following components: a control pump, a cuff and a pressure regulating balloon. Most of the alterations and improvements from the previous artificial prostheses are incorporated in this control pump.

The control pump, which is implanted in the scrotum or labia, consists of an upper portion that contains the resistor and valves and a lower portion that is the deflatable pump. In addition, a deactivation button is on the upper portion of the control pump. When this button is pressed into place, a valve is seated so that fluid cannot get to the cuff and vice versa. If the deactivation button is pressed in while the cuff is empty, then the sphincter is deactivated. It can be reactivated by sharply compressing the pump. There are many advantages to this sphincter. The deactivation device allows for improved healing at the operative site and avoids early manipulation of the pump in the early postoperative period when the scrotum or labia is tender. In addition, it permits instrumentation of the urethra while deactivated. It also allows the patient to deactivate the device at certain times, eg, in bed at night if the patient is ordinarily continent then and does not need the help of

**American Medical Systems, Minneapolis, MN.*



Fig. 1: AS sphincter 800. (Courtesy of American Medical Systems, Minnetonka, Minnesota)

the sphincter.

The occlusive cuff may be placed at the bladder neck or bulbous urethra. All cuffs are 2 cm wide but vary in length from 4.5 to 11 cm. The correct size is determined intraoperatively by using a measuring tape.

The pressure regulating balloon is placed in the prevesical space and comes in the following three pressure ranges: 51-60 cm H_2O, 61-70 cm H_2O, and 71-80 cm H_2O. This balloon accurately controls the amount of pressure exerted on the urethra by the cuff.

When the patient wants to void, he or she squeezes the pump several times. This action transfers the fluid from the cuff into the pressure regulating balloon. The cuff then opens around the urethra or bladder neck, and urine can be expelled. The resistor will delay refilling of the cuff to the pressure determined by the type of pressure regulating balloon chosen for three to five minutes.

Patients

The AS 800 urinary sphincter was implanted into six carefully selected patients suffering from severe incontinence over the past 18 months. Three patients had neurogenic incontinence secondary to myelomeningocele, one following a transurethral resection of the prostate, one following a radical retropubic prostatectomy and one after an abdominoperineal resection of the colorectum. There were four males and two females with ages ranged from 10 to 71 years.

Each patient underwent a careful evaluation only after all conservative measures, such as pharmacologic agents and intermittent catheterization, had failed to keep the patient dry. This evaluation included a urine culture, serum creatine level, intravenous pyelogram, voiding cystourethrogram, a cystometrogram and urine flow rate. Cystoscopy was only performed in those patients who were incontinent following a surgical procedure involving the bladder neck or urethra. In addition, each candidate was determined to be highly motivated and have good manual dexterity. The patients with incontinence secondary to myelomeningocele had stable neurological status.

If, at the completion of this evaluation, the patient met these requirements, he was offered the prosthesis, and the risks and benefits were explained carefully. No surgical procedures to further ablate any remaining uncoordinated sphincter activity were performed in neurogenic patients prior to implantation.

The bladder neck was chosen as the site for the cuff whenever possible, and this was the case in the three patients with neurogenic sphincters secondary to myelomeningoceles. In the other three patients, the cuff was placed around the bulbous urethra. All patients were checked for urinary tract infection again just prior to surgery. A cleansing enema was given as well as a surgical scrub of the genitalia on the night before surgery. Intravenous antibiotics, an aminoglycoside and penicillin were administered just prior to surgery and continued for 24 hours postoperatively. Oral sulfonamides were continued until discharge from hospital.

The surgical procedure was identical to that which has been well described by Scott *et al.*[6]

Results

Our results are summarized in Table 3. Five of the six patients have had a successful result with a follow-up ranging from six to 18 months. Success was defined as being completely continent or requiring only one pad per day to remain dry. There were no intraoperative complications nor have there been any infections, erosions or malfunctions of the device. One patient became continent without activation of the sphincter. Three patients, all with neurogenic sphincters, continued on clean intermittent catheterization but stayed dry between catheterizations. One patient, although improved, had stress incontinence sufficiently severe to classify has as a failure. In this case, the sphincter functioned well, but the pressure of the regulating balloon, which was

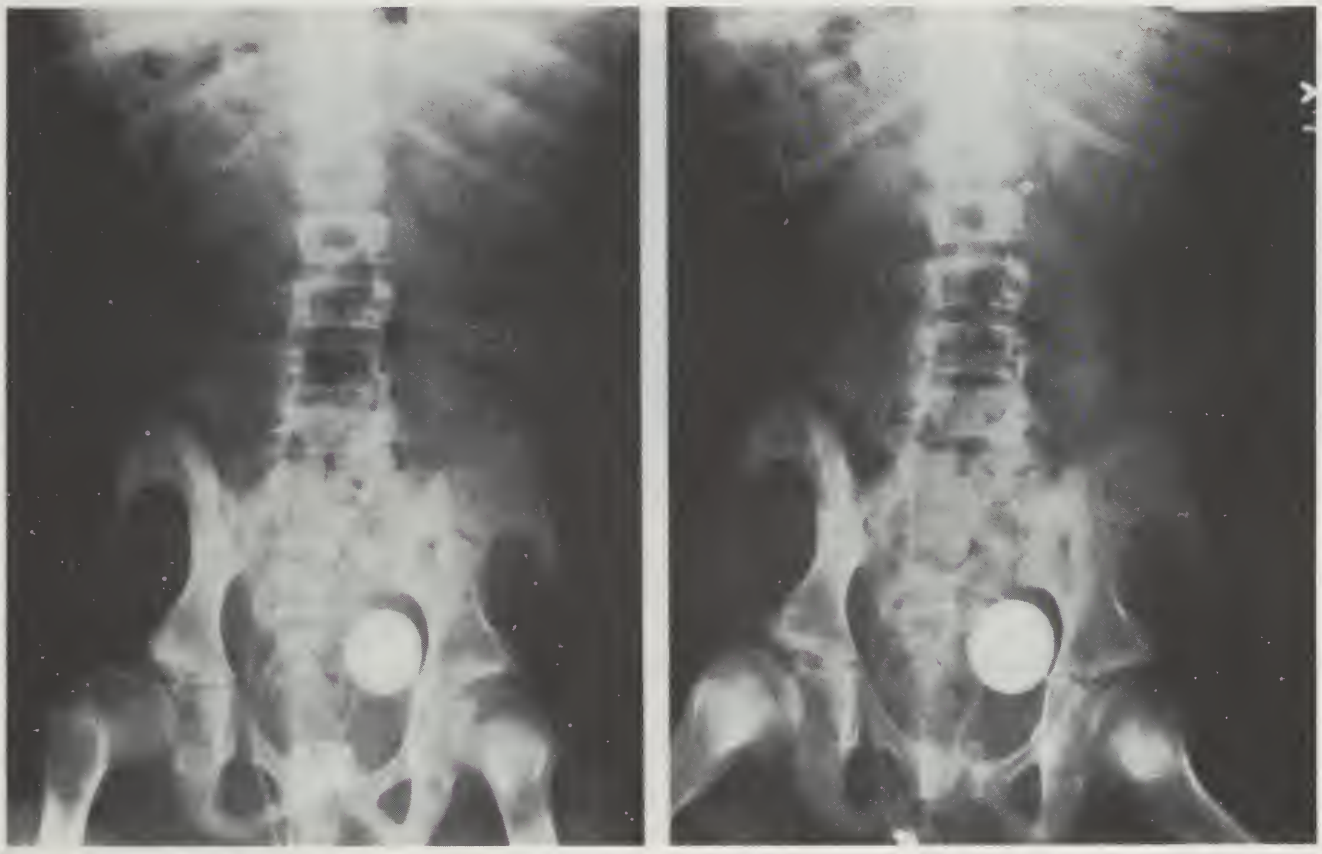


Fig. 2: (a) Cuff inflated. (b) Cuff deflated around bladder neck.

in the 51-60 cm H_2O range, appeared to be too low. Further investigation and surgery is planned.

Case Reports

A 10-year-old white female with myelomeningocele, had worn diapers since birth. Radiologic studies showed that she had normal upper tracts and a large nontrabeculated, nonrefluxing bladder. Her urine was sterile. Conservative measures using anticholinergic medications and intermittent catheterization were unsuccessful in keeping her dry. Further evaluation with a cystometrogram showed a poor detrusor contraction. However, it was felt that with intermittent catheterization, she could remain dry after placement of a sphincter. The device was placed around the bladder neck, and she is now dry between catheterizations. Postoperative x-rays show her sphincter around the bladder neck with the cuff inflated and deflated (Fig. 2).

A 60-year-old black male underwent a radical prostatectomy for Stage A_2 prostatic cancer. Postoperatively, he was incontinent. At one year post-operation, he underwent evaluation for a sphincter, which included cystoscopy to rule out a stricture and evaluate the tissue viability of the bulbous urethra. Because of his prior pelvic surgery, the sphincter was placed around the bulbous urethra. Postoperatively, he is fully continent and engages in a full days labor. Postoperative x-rays show the cuff around the bulbous urethra inflated and deflated (Fig. 3).

Discussion

As the most recent model of the original Scott-Bradley-Timm Model AS 721, the AS 800 represents a considerable improvement over the original. This new device is relatively easy to implant, simple to use and is comparatively trouble free. It is superior to other prosthetic devices, such as the Berry, Kaufman and Rosen prostheses, because it is more physiologic, it can be used in both males and females and it is suitable for patients with neurogenic incontinence.

Nevertheless, it must be remembered that it is an artifical mechanical device and, as such, is subject to occasional mechanical faults or infection.[7] Therefore, placement of this prosthesis should be looked upon as



Fig. 3: (a) Cuff inflated. (b) Cuff deflated around bulbous urethra.

the last resort to be used only when all other more conservative means have failed.

The most important factor in obtaining a successful result is careful patient selection particularly with patients with neurogenic incontinence. The incidence of mechanical failure and surgical complications has diminished due to improvements in sphincter design and increasing surgical experience. The major problem leading to failure was leakage of fluid from the sphincter, especially the cuff. This problem has been reduced with the development of a seamless cuff. Other mechanical problems include kinking of the tubing and leaks from the pump and pressure regulating balloon. The main surgical complications are infection and erosion.

Success rates up to 90% have been reported.[8] However, care must be taken not to evaluate results in terms of the success rate alone because successful results may have required more than one operative procedure. One must also look at the revision rate, the number of sphincters that have had to be removed and the number of patients who are still incontinent with the sphincter.

In our six patients, five had a successful result after a single procedure, while the other patient is regarded as a failure and will require a revision. In this patient, preliminary evaluation suggests that the pressure regulating balloon (51-60 cm H_2O) is insufficient. This patient will probably require a higher pressure regulating balloon, provided that no mechanical problem is detected when we test the sphincter intraoperatively.[9] We have elected to use the lowest pressure regulating balloon (51-60 cm H_2O) when placing the sphincter around the bulbous urethra. This choice increases the risk of persisting incontinence, but this is considered preferable to using a higher pressure balloon and risking urethral erosion. We have placed the sphincter around the bladder neck whenever possible, that is when there has been no previous surgery in the region.

TABLE 1

Classification of Incontinence

Type	Etiology
Urge	Cystitis
Overflow	Obstruction
Stress	Pelvic floor relaxation
Sphincteric	Myelomeningocele, tranma

Scott[3] has advocated external sphincterotomy in males and an anterior bladder flap urethroplasty in females when there is evidence of incomplete bladder emptying. However, we have hesitated to do this because if the sphincter fails then the patient may be more incontinent than before. Instead, we prefer to use intermittent catheterization in these patients as suggested by Barrett.[10] We have not seen any complication with this to date.

Despite increasing success and enthusiasm with these sphincters, there are some unanswered questions. We do not know how long the device will last nor do we know what happens when a child grows to adulthood, i.e., whether the prosthesis will still be effective or will require replacement with a larger size. Hopefully, the answers to these questions will soon be available as the prosthesis enters its 13th year of use.

TABLE 2

History of Artificial Anti-Incontinence Prostheses

Name	Year Reported	Type	Material	Present Usage
Berry[2]	1961	Passive compression	Acrylic and silastic	Nil
Swenson[3]	1972	Spring compression loop	Dacron and silicone	Nil
Scott et al.[1] with modifications	1973-85	Hydraulic compression	Silicone	Most common
Kaufman[4]	1973	Passive compression	Silicone-gel	Occasional
Rosen[5]	1976	Hydraulic compression	Silicone	Rarely

TABLE 3

Summary of Patients with AMS Sphincter 800

Patient		Etiology of Incontinence	Site of Sphincter	Cuff Size	Balloon Pressure	Results	Months Follow-up
Age	Sex						
71	M	Post TURP	Urethra	7.0 cm	51-60 cm H_2O	Successful	18
45	F	Myelomeningocele	Bladder neck	7.0 cm	61-70 cm H_2O	Successful	15
60	M	Post radical prostatectomy	Urethra	4.5 cm	51-60 cm H_2O	Successful	10
15	M	Myelomeningocele	Bladder neck	9.0 cm	71-80 cm H_2O	Successful	7
10	F	Myelomeningocele	Bladder neck	7.0 cm	71-80 cm H_2O	Successful	7
62	M	Post abdomino-perineal resection	Urethra	4.5 cm	51-60 cm H_2O	Unsuccessful	6

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From the Division of Urology, Department of Surgery, University of Louisville School of Medicine, Norton-Children's Hospital, and the Veterans Administration Medical Center, Louisville, Kentucky. Reprint requests to: James I. Harty, M.D., Department of Surgery, University of Louisville School of Medicine, Ambulatory Care Building, Louisville, KY 40292.

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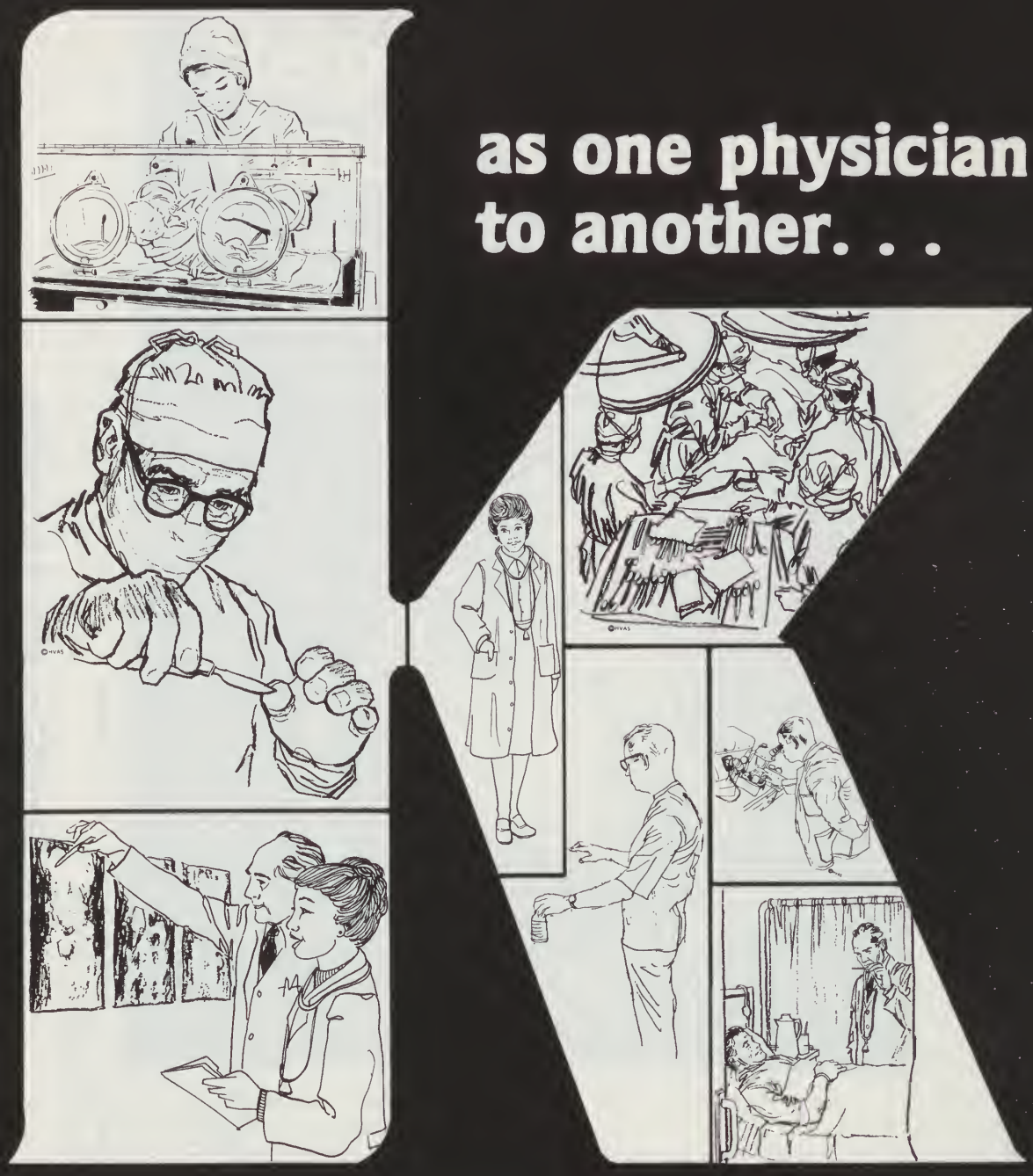
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EDITORIAL

Before me is a stack of editorials from current medical publications; even brief perusal is distressing. Consider this partial listing: *A Crisis in Medical Education*[1]; *What Lies Ahead for American Physicians: One Economist's View*[2]; *Medicine - A Profession in Trouble*[3]; *Medicine - Trade or Profession*.[4]

One can fairly well surmise the theme of these articles - a litany of the external forces which have rapidly altered certain aspects of the professional life of physicians. Some, but not all aspects.

I am reminded of the reasons that physicians enter the field of medicine - some altruistic, some not. The other day I asked a young medical student to state his reasons for wanting to become a physician. His reasons and those of his student colleagues are not different from ours of years past: the scientific aspects of the profession; concern for the sick – a desire to alleviate suffering; the opportunity to appreciate the outcome of one's effort; prestige; job security; – and yes, even money. One that I would add is the desire to act with substantial independence.

Realistically, some of these aspirations can no longer be fully realized. A few, however, can be fully realized, despite any sort of outside influence. Most notable of these is concern for the sick and the desire to alleviate suffering.

The next few years will tell us if future medical school applicants still aspire to the traditional altruistic values of our profession, or whether they will yield to less laudable values. Our great responsibility is to preserve the best of our profession and to translate it to our successors.

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G. Randolph Schrodt, M.D.



AKMA Makes a Difference

The Auxiliary to the Kentucky Medical Association is on the offense. Following a seminar, "Coping with Malpractice Problems," presented at the AMA Auxiliary Leadership Confluence in October 1984, state and county auxiliary leaders were convinced that we can make a difference in malpractice litigation.

Armed with the information presented at the Leadership Confluence, Mrs. Kenneth Hauswald (Ginny), President-Elect of the Auxiliary to the Boyd County Medical Society, organized a "Coping with Medical Malpractice Litigation" seminar for presentation to her county auxiliary. On March 12, a local defense attorney for the Kentucky Medical Insurance Corporation (KMIC), our physician owned insurance carrier, presented a very successful seminar on the subject to 28 auxilians in Boyd County.

The enthusiastic response to the seminar in Boyd County and the desire of the state auxiliary to play a greater role in addressing issues of special concern to the spouses of physicians led to the development of AKMA's most recent project. AKMA, with the assistance of Bob Proffitt, a Sales Account Executive with KMIC, and the support of the KMIC management, will coordinate the presentation of a "Coping with Medical Malpractice Litigation" seminar in each of KMA's 15 trustee districts.

The seminars to be held during the Fall of 1985 and the Spring of 1986 will offer auxilians information on the litigation process and practical advice on dealing with the many problems that arise during the course of litigation. The first seminar will be held on October 1, in conjunction with the AKMA Fall Board Meeting in Louisville.

The Auxiliary to the Kentucky Medical Association cannot end the national malpractice litigation crisis, but, by preparing auxilians for the prospect of litigation, we hope to ease the personal crisis that the physician's family faces when litigation does occur.

Pamela H. Potter

Auxiliary Fall Board Seminars

The Fall Board Meeting of the AKMA is right around the corner and we are very excited about our plans. We hope that everyone attending will share in our enthusiasm.

Registration will be held on Monday, September 30, and Tuesday, October 1, in the Galt House East Registration Area. The AKMA Committee meetings of Finance, Planning, Executive, Membership and AMA-ERF will be held between 1 P.M. and 5 P.M. in the Brown Room, Galt House East.

The Hospitality Room will be open on Monday in the President's Suite from 8 A.M. to 10 P.M. From 8 to 10 P.M., Lynn Reece of "Your Total Image" will present a seminar entitled, "Looking Good." Ms. Reece will show us how to get the most out of our wardrobes.

On Tuesday, October 1, the Fall Board will convene in the Nunn Room, Galt House East, from 9 to 11 A.M. We will then attend a luncheon and style show, with fashions from KAREN'S, a ladies' boutique, and our own AKMA members will be the models.

From 2 to 4 P.M., we are pleased to offer two informative seminars: **G. Randolph Schrodt, Jr., M.D.,** Assistant Professor, Department of Psychiatry at U of L, will speak on "Adolescent Depression and Suicide."

Pam Potter of Ashland, first Vice President of AKMA and a practicing Attorney, will speak on "Malpractice."

These seminars will be presented twice in order to give everyone an opportunity to hear these timely and interesting topics.

See you at Fall Board.

Ann H. Arena
Chairman-Fall Board

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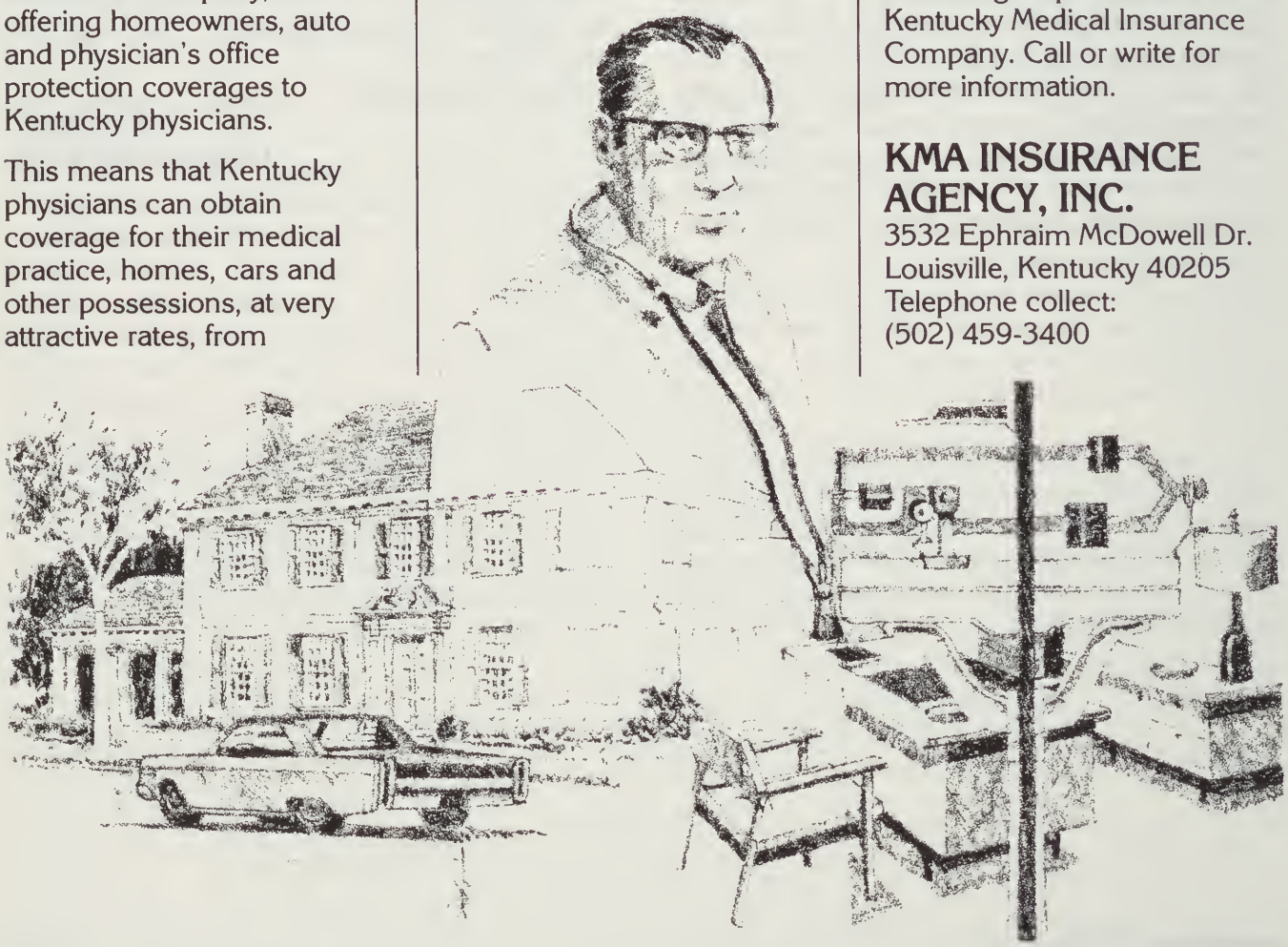
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Postgraduate Page

SEPTEMBER

5-7 Southeastern Occupational Health Conference, Birmingham, Alabama. "Health and Safety Needs of a Changing Work Force." Contact: Mary Snow, The University of Alabama at Birmingham School of Public Health, University Station, Birmingham, AL 35294, (205) 934-3676.

11-14 Fifteenth Annual Peripheral Vascular Disease Symposium "Critical Issues & Controversies in Vascular Surgery," The Hyatt on Capitol Square, Columbus, Ohio. Contact: Shelly J. Hershberger, Saint Anthony Medical Center, 1492 E. Broad St.; Suite 1100, Columbus, Ohio 43205, (614) 251-3680.

13-14 Neurology for the Primary Care Physician, Hyatt Regency, Lexington, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

14 Advanced Intraocular Lens Symposium, Humana Hospital Audubon, Louisville, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

30 Arch E. Cole Lecture, HSC Auditorium, Louisville, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

OCTOBER

4-5 Intramedullary Nailing, Jewish Hospital, Louisville, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

23-27 Pulmonary Diseases/Critical Care Medicine, Sandestin Beach Hilton Hotel, Destin, Florida. Contact: Division of Continuing Medical Education, Vanderbilt University School of Medicine, CCC-5316 Medical Center North, Nashville, TN 37232, (615) 322-4030.

24 John Walker Moore Lecture, ACB Auditorium, Louisville, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

NOVEMBER

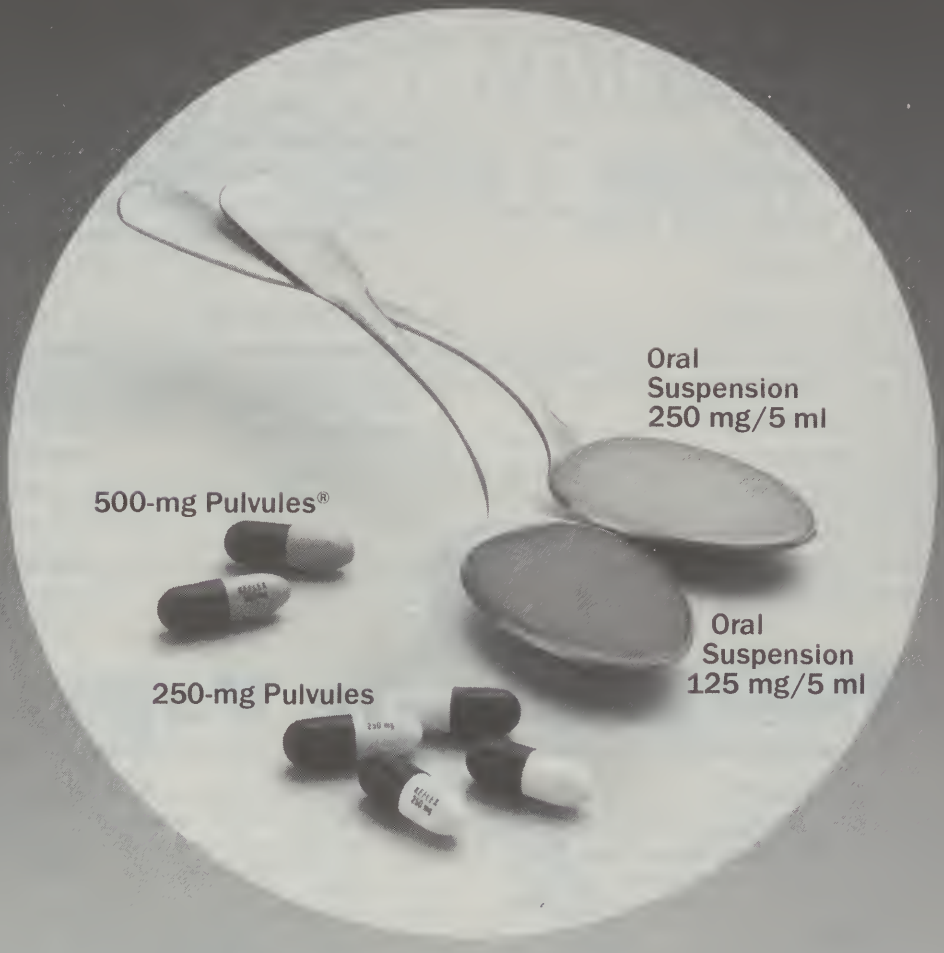
1-2 Cincinnati Cancer Conference IV, Hyatt Regency Cincinnati, Cincinnati, Ohio. Contact: Tom O'Connor, Course Manager, Bethesda Hospital, Inc., 619 Oak Street, Cincinnati, OH 45206 (513) 569-6339.

5-8 American Academy of Clinical Anesthesiologists Meeting, Atlantic City Resorts International Hotel, Atlantic City, New Jersey. Contact: Donald G. Catron, M.D., AACA, P.O. Box 11691, Knoxville, TN 37939, (615) 588-6279.

7-8 19th Annual Newborn Symposium, NKC Auditorium, Louisville, Kentucky. Contact: Billy F. Andrews, M.D., Professor and Chairman, Department of Pediatrics, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 562-8826.

11 Theodore Segal Lecture, HSC Auditorium, Louisville, Kentucky. Contact: Gerald D. Swim, Director, CME, School of Medicine, University of Louisville, Louisville, KY 40292, (502) 588-5329.

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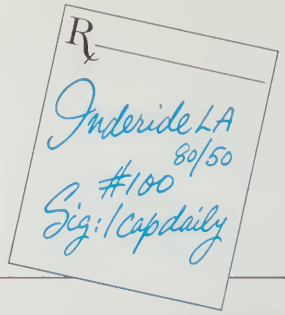
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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in: 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis; erythematous rash; fever combined with aching and sore throat; laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis; nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia; LE-like reactions; psoriasiform rashes; dry eyes; male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping; diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache, xanthopsia.

Hematologic: Leukopenia; agranulocytosis; thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash; urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

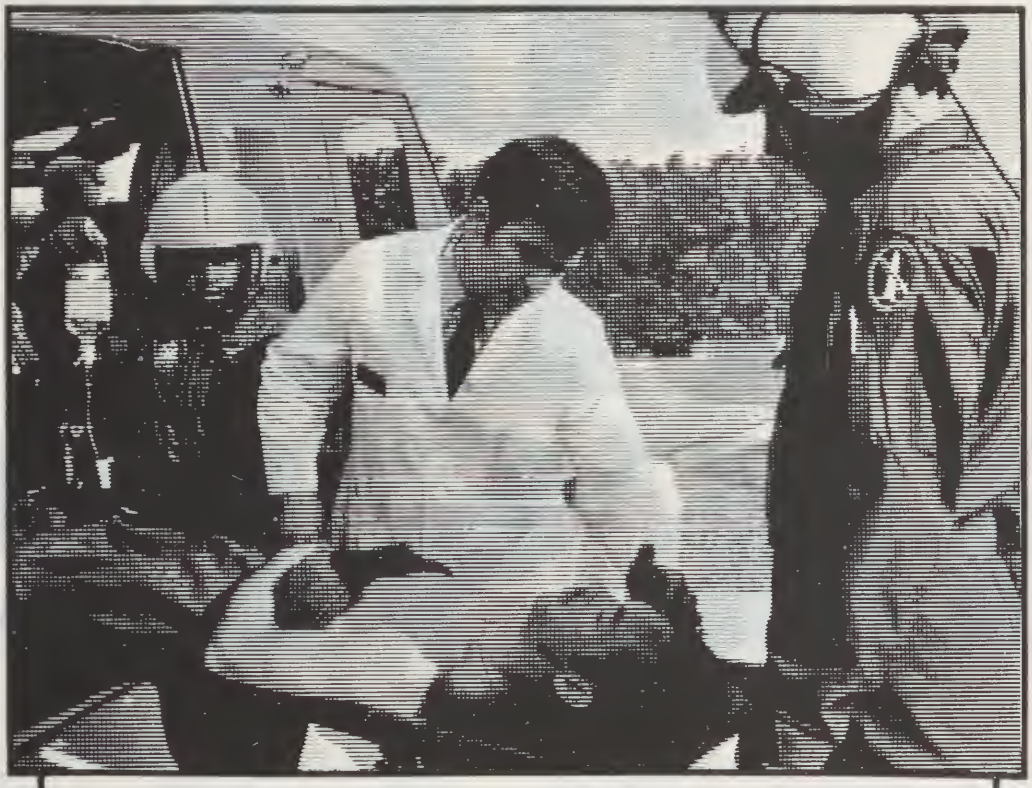
Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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SPECIAL ARTICLE

Medical Malpractice Legislation - The Kentucky Experience

WILLIAM E. DOLL, JR., ATTORNEY

If you are going to look at malpractice legislation in Kentucky you have to do so with an awareness and understanding of what occurred in the Commonwealth during 1976 and 1977. During the mid-70s Kentucky, like many other states, was caught up in a "medical malpractice crisis." The market for professional liability coverage began to shrink. Where coverage remained available, its price was increasingly prohibitive. In California, for example, physicians engaged in work slowdowns and even gave thought to striking to publicize their problem.

When the '76 session of the General Assembly began, Kentucky legislators had an acute awareness of the malpractice problem. KMA had been extremely active in lobbying the issue, a special Task Force appointed by the Governor had been studying the situation for months and there was a tremendous amount of publicity and legislative activity across the Country during 1975 when most state legislatures were in session.

So it came as no surprise when, in the latter stages of its session, the Kentucky Legislature passed two bills intended to alleviate some of the pressure on the medical community.

The first was SB 248, which, in summary, included provisions for:

1. Elimination of the Ad damnum clause - provided that the complaint could not recite any sum as alleged damages but there could be a statement that the amount in controversy was in excess of that necessary to establish the jurisdiction of the court.
2. Advance payment - provided that advance payments made to the plaintiff could not be used in evidence to show any admission of liability on the part of the carrier or the physician involved.
3. Apportionment of damages - in cases involving multiple defendants, the jury was to be allowed to award damages against defendants based on a percentage of their involvement.
4. Statute of frauds - provided that no physician or health care provider be liable for any guarantee or assurance of results unless those guarantees are given to the patient in writing and signed by the physician.
5. Provided for reporting to the Commissioner of Insurance all malpractice claims settled or adjudicated and their final judgment amount.
6. Informed Consent - codified the law relative to informed consent.
7. Confidentiality of medical records - provided immunity from suit to those serving on peer review-type bodies and added to that the immunity of proceedings and records of any peer review committee from discovery, subpoena, or introduction into evidence in any civil or administrative proceeding.
8. Patients' Compensation Fund - this provision established a compensation fund within the Department of Insurance in a trust and agency account. It required that every physician licensed and practicing in Kentucky and every hospital located in Kentucky be a member of the fund. Physicians who

The following article was prepared for use in a seminar entitled "What Every Physician Should Know About the Law," which was conducted by the University of Louisville School of Law and sponsored jointly by the KMA and the Kentucky State Board of Medical Licensure. The author is Director of Legislative and Governmental Affairs for KMA.

had a limited practice or some other special circumstance could be excluded by the Commissioner from participation in the fund. This section further required each member of the fund to carry professional liability insurance with coverage of $100,000 per occurrence and $300,000 in the aggregate. Physicians could qualify as self-insureds if they did not wish to purchase commercial insurance. Each member of the fund was to pay an annual assessment. In the case of physicians, this assessment was not to be more than 10% of their annual premium for the $100,000/$300,000 liability insurance or, in the event of a self-insured physician, 10% of the average premium that he would have had to pay were he not self-insured. For hospitals the mandatory assessment was $50 per bed.

9. Established that the Patient's Compensation Fund was to be responsible for any judgment or settlement against a physician or hospital, or other member of the fund, in excess of $100,000 on any one claim or $300,000 in the aggregate during any one year. This, in effect, was an umbrella policy available to all physicians and hospitals.
10. Established that any claimant who had a judgment or a settlement in excess of $100,000 was to file his claim with the Patients' Compensation Fund for such excess. There was a limit on the fund in that it could pay no more than $1 million on a single claim in a given year. In the event claims drawn from the patients' compensation fund exceeded its reserves, funds were to be made available from the general funds of the Commonwealth of Kentucky on a loan basis, to be paid back at some future time and bear legal interest. Any physician or hospital which did not obtain the required insurance coverage, or did not pay the annual assessment for the Patients' Compensation Fund when due, was to be reported to the State licensing authorities for hearings to enforce the provisions of the act.

The second measure, SB 249, authorized creation of a Joint Underwriting Association to protect health care providers for whom insurance coverage was not otherwise available.

Later in 1976, a test case was filed in Franklin Circuit Court concerning SB 248. The case was appealed, and in the summer of 1977, the Court of Appeals, speaking through Justice Palmore, ruled that the provisions relating to the creation and maintenance of the Patients' Compensation Fund (PCF) were unconstitutional.[1] The Court also ruled that the amendment to KRS 311.377, which established peer review confidentiality, was unconstitutional on the technical ground that it was not germane to the title in SB 248 and therefore ran afoul of § 51 of the Kentucky Constitution.[2] The remainder of the Act was allowed to stand.

The Patients' Compensation Fund had been the cornerstone of SB 248. Once the PCF was struck down, the KMA determined to pursue the sponsorship of a reciprocal insurance company to provide professional liability coverage in Kentucky. In mid-1978, Kentucky Medical Insurance Company was formed, and today it underwrites approximately 50% of the primary coverage in the Commonwealth.

As noted previously, the Court in *McGuffey* did not strike down the other provisions of SB 248. However, the provision prohibiting the statement of the amount of damages alleged in a malpractice suit[3] was found unconstitutional in *McCoy v. Western Baptist Hospital.*[4] Recently, the Kentucky Rules of Civil Procedure were changed to incorporate the substance of the previously referenced provision in CR 8.01 (2). Thus while the measure followed a rather circuitous route, it remains in effect in Kentucky.

KRS 311.377, dealing with peer review confidentiality, was re-enacted by the General Assembly in 1978.

Those provisions relating to advance payment, apportionment of damages, the statute of frauds, reporting settlements and judgments to the Insurance Commissioner, and informed consent,[5] are all still law in Kentucky.

That provides a *post-McGuffey* view of things. However, such a compilation only sets the stage and establishes the background against which we in Kentucky must deal with still another "malpractice crisis."

You need look no further than the situations in New York, California and Florida to see evidence that malpractice problems are ever increasing. Kentucky has not been free from these difficulties. Premium increases of 40% to 45% are not uncommon. The impact on specialty groups, such as obstetricians-gynecologists, neurosurgeons and emergency room physicians, has been particularly severe.

However, there is a difference between the current situation and that which existed in the mid-70s. While there have been greatly increased outlays by liability insurers in recent years, they have not yet reached the point where underwriters are involved in a wholesale

withdrawal from the market. Thus, today's crisis is more one of affordability than availability. That makes it more difficult to develop interest and concern at the political level.

That does not make the problem any less real. Any number of solutions have been proposed. The mid-70s tort reform movement, which gave rise to SB 248 in Kentucky, was mirrored in varying degrees across the U.S. In many instances, the reforms could not withstand constitutional scrutiny. Many of those which survived have not been as effective in reducing litigation volume or severity as hoped. Other measures were poorly thought out, and either had no effect at all on medical liability costs or, in a few cases, had an opposite effect.[6]

Still, tort reform remains high on the list of suggestions. Since Kentucky has those measures which remain from the '76 effort, we are, to that extent, ahead of the game. This State also has one of the better Statutes of Limitation[7] in the Country, so any attempt to modify it might well be counterproductive. The provision relating to minors[8] creates some problems, but serious question exists as to the political advisibility of attempting to alter that statute.

Some states have established a cap on the amount that can be awarded as damages in a malpractice action. Such limitations have been effective. A 1982 Rand Institute for Civil Justice report found that states with caps had an average drop of 19% in the severity of awards within two years of enactment.[9] However, these liability limits generally have been extremely vulnerable to constitutional challenge.[10] Kentucky's Patients' Compensation Fund was, in a sense, such a limitation, and we have discussed its constitutional infirmity already. As Justice Palmore notes in *McGuffey*, ". . . no doubt our Constitution §54[11] dampened any legislative disposition to limit the amounts recoverable in a malpractice suit. . ."[12] in any more direct way. The inference is obvious, and §54 of the Kentucky Constitution stands firmly in the path of any attempt to impose a cap on malpractice awards in this State.

Some have argued that such a limitation would not run afoul of Kentucky's Constitution if the cap related only to non-economic loss such as pain and suffering, mental anguish or less of consortium. This writer fears such an argument attempts to create a distinction where there is no true difference and the §54 also affects a prohibition against a limit on non-economic loss. Regardless, this is an area where reasonable minds can differ, and the ultimate determination awaits the passage of time.

There are any number of other tort reform measures currently being advocated in various forums across the country. KMA has organized a committee that is attempting to determine which, if any, of these proposals are appropriate for Kentucky. The committee is evaluating the efficacy of these measures, as well as the political ramifications attendant to an effort to enact them into law.

A representative sample of the reform measures most frequently advocated, including those suggested by the AMA, is set out later in this article. It should be noted that the Association of Trial Lawyers of America takes issue with nearly all of these proposals. In fact, ATLA recently scoffed at the existence of a medical malpractice crisis.[13] The implication of such a reaction cannot be ignored. The Kentucky Chapter of the ATLA is quite vocal, and many attorneys serve in the General Assembly. The potential for strong resistance therefore exists, particularly if the Executive Branch chooses not to exert its influence on behalf of any reform initiative.

There is no way to know which, if any, of the following measures will find their way into the Kentucky General Assembly. For that reason, this sample[14] is provided without an expression of opinion as to the merit or quality of the respective proposals.

Ad damnum clauses - As noted earlier, the *ad damnum* clause is that part of a plaintiff's initial pleadings which states the amount of monetary damages and other relief requested by the plaintiff in a court action. Most of the legislation on this subject provides for the elimination of the *ad damnum* clause altogether; legislation also often provides that the defendant be apprised of the precise amount sought by the plaintiff through the normal course of pre-trial discovery. This requirement exists in Kentucky under Civil Rule 8.01 (2).

Arbitration - Arbitration statutes relate to voluntary procedures whereby patients and health care providers may enter into written agreement for the submission of any medical liability claims to binding arbitration. This procedure is an alternative to and in lieu of trial by jury. This procedure provides for limited judicial review of the arbitration decision.

Most of the medical liability arbitration statues provide that written arbitration agreements may cover present and future medical injury claims. All of the statutes generally provide that a person's right to treatment shall not be prejudiced in any way by the decision whether

or not to enter into an agreement for arbitration of medical liability claims. In other words, the agreement must truly be voluntary to be binding. Also, most statutes which permit arbitration agreements to cover future medical injury claims provide for a certain period of time, either following execution of the contract or provision of the services, in which the patient may reject the arbitration agreement.

Sections 14[15] and 54[16] of the Kentucky Constitution may create problems for the enactment of such a requirement in Kentucky. In addition, dicta in *Kennedy v. Ziesmann*[17] indicates such a requirement would be contrary to public policy in this State.

Attorney fee regulation - The most common arrangements for payment of plaintiff attorney fees in medical liability cases is the "contingent fee." Under this type of arrangement, the attorney receives as his fee an agreed upon percentage of any final award or settlement made to the plaintiff.

Legislation enacted during the last few years regulating attorney fees in medical liability cases has taken several different approaches: a sliding scale for the plaintiff attorney fees in terms of a percentage of the award; court review of the proposed fees and approval of what it considers to be a "reasonable fee"; or limiting attorneys' fees to a certain percentage of the amounts recovered by the plaintiff.

Awarding costs, expenses and fees - A few states have provisions designed to deter the pursuit of frivolous medical injury claims. These statutes generally provide that where one party to the action has been found to have acted frivolously in bringing the suit, the party may be found liable for payment of the other party's reasonable attorney and expert witness fees and court costs. These provisions differ from the usual civil trial situation in which payment for attorney fees and expert witness fees are normally paid by the party who incurs them.

Collateral source provisions - the collateral source rule is a rule of evidence that prohibits the introduction into evidence at trial of any indication that a patient has been compensated or reimbursed for the injury from any source other than the defendant.

Legislation modifying the collateral source rule has taken several approaches: permitting consideration of compensation of payments received from some or all collateral sources; requiring the mandatory offset against any award in the amount of some or all collateral source payments received by the plaintiff; or allowing the defendant to introduce evidence of the plaintiff's compensation from collateral sources. The jury is instructed to make a mandatory reduction of the award for economic loss by a sum equal to the difference between the total benefits received and the total amount paid by the plaintiff to secure such benefits.

Expert witness - Expert witnesses are required to explain many of the complex and difficult issues in a medical negligence case. Legislation affects the qualifications and use of expert witnesses.

Limits on liability - Some states have enacted legislation that limits the liability of defendants in medical liability lawsuits. These statutes limit liability in one of several ways: limiting recovery of a particular type of damages; placing an absolute cap on the amount of damages recoverable; or placing an absolute cap on physician liability under a patient compensation fund.

The constitutional problems inherent in establishing such a limit in Kentucky have previously been discussed in this article.

Patient compensation fund - A patient compensation fund is a governmentally operated mechanism established to pay that portion of any judgment or settlement against a health care provider in excess of a statutorily designated amount. A fund may pay the remainder of the award or it may have a statutory maximum (eg $1 million).

Patient compensation funds are generally funded through an annual surcharge assessed against health care providers, with such surcharge often being a specified percentage of the provider's annual insurance premium. Patient compensation funds are also known as "excess recovery funds."

As previously noted, Kentucky's PCF was struck down as unconstitutional in *McGuffey v. Hall.*[18]

Periodic payments - In most states, unless otherwise agreed on by the parties or mandated by the court, judgments can only be lump-sum awards. Under a periodic payments system, the payments are made over the actual lifetime of the plaintiff or for the actual period of disability.

Pre-trial screening panels - Pre-trial screening panels are prerequisites to trial. Procedures for panels usually require a mandatory pre-trial hearing to be conducted by a panel comprised of members as dictated by statute. In some states the pre-trial hearing is voluntary. The composition of the panel and its scope of inquiry vary greatly from state to state.

All statutes establishing pre-trial screening procedures provide that the panel's decision is not binding on the parties and that it does not preclude a plaintiff from initiating a lawsuit. Although some states permit the decision of the panel to be introduced into evidence in a subsequent lawsuit, the panel's decision is not binding upon a judge or jury.

Depending on the structure adopted in Kentucky, this requirement could encounter some of the same problems mentioned with respect to arbitration.

Res ipsa loquitur - *Res ipsa loquitur* ("The thing speaks for itself") is a common law doctrine which applies when a plaintiff can demonstrate that the injury occurred while the instrumentality causing the injury was under the exclusive control of the defendant and which, if operated in a non-negligent fashion, does not normally cause injury. In recent years, a number of state courts have expanded the application of res ipsa loquitur, and increased the effect of its applicability from that of a mere inference to that of a presumption, which if not rebutted, will allow the jury to reach no finding other than liability.

Legislation enacted in several states has codified the doctrine in regard to medical liability cases by delineating those circumstances when the doctrine may be applied, such as when a foreign object has been left in a body or the patient has suffered radiation burns. However, these statutes have sought to make it clear that the mere fact of injury is not sufficient to invoke the doctrine.

Standard of care - the standard of care in a medical negligence action is that level of care to which a health care provider is held accountable to a patient, and is based upon the prevailing level of care practiced within locality (community, state or national).

Kentucky's standard flows from *Blair v. Eblen*[19] and requires, in essence, that the physician is under a duty to use that degree of care and skill which is expected of a reasonably competent practitioner in the same class to which he belongs, acting in the same or similar circumstances.

Statute of limitations - A statute of limitations is a law that bars a cause of action after the expiration of a specified time period. In many states the statute of limitations for medical liability actions begins to run only upon discovery of the injury. Injuries may be discovered several years after the treatment was provided, so the time period for filing an action may be uncertain. Some states have sought to eliminate the "long tail" by placing an absolute maximum time period within which medical liability suits may be brought. An exception to the time period is provided in some of these statutes where foreign objects are left in the body, or where the health care provider has fraudulently concealed the fact of injury.

Most state statutes of limitations provide that if an injury is incurred by a minor, the statute is tolled (ie stops running) on the minor's cause of action until he reaches the age of majority. Changes in the statute of limitations for a minor's actions usually provide that the statute will begin running prior to the age of majority.

Kentucky's basic statute has a one-year limit and is codified in KRS 413.140.

That should give you an idea of the variety of proposals being advocated at the state level.

Since my charge was to discuss only the states, and specifically Kentucky, I will only note that some close parallels exist at the federal level in proposals relating to products liability[20] and a no-fault system for medical malpractice.[21]

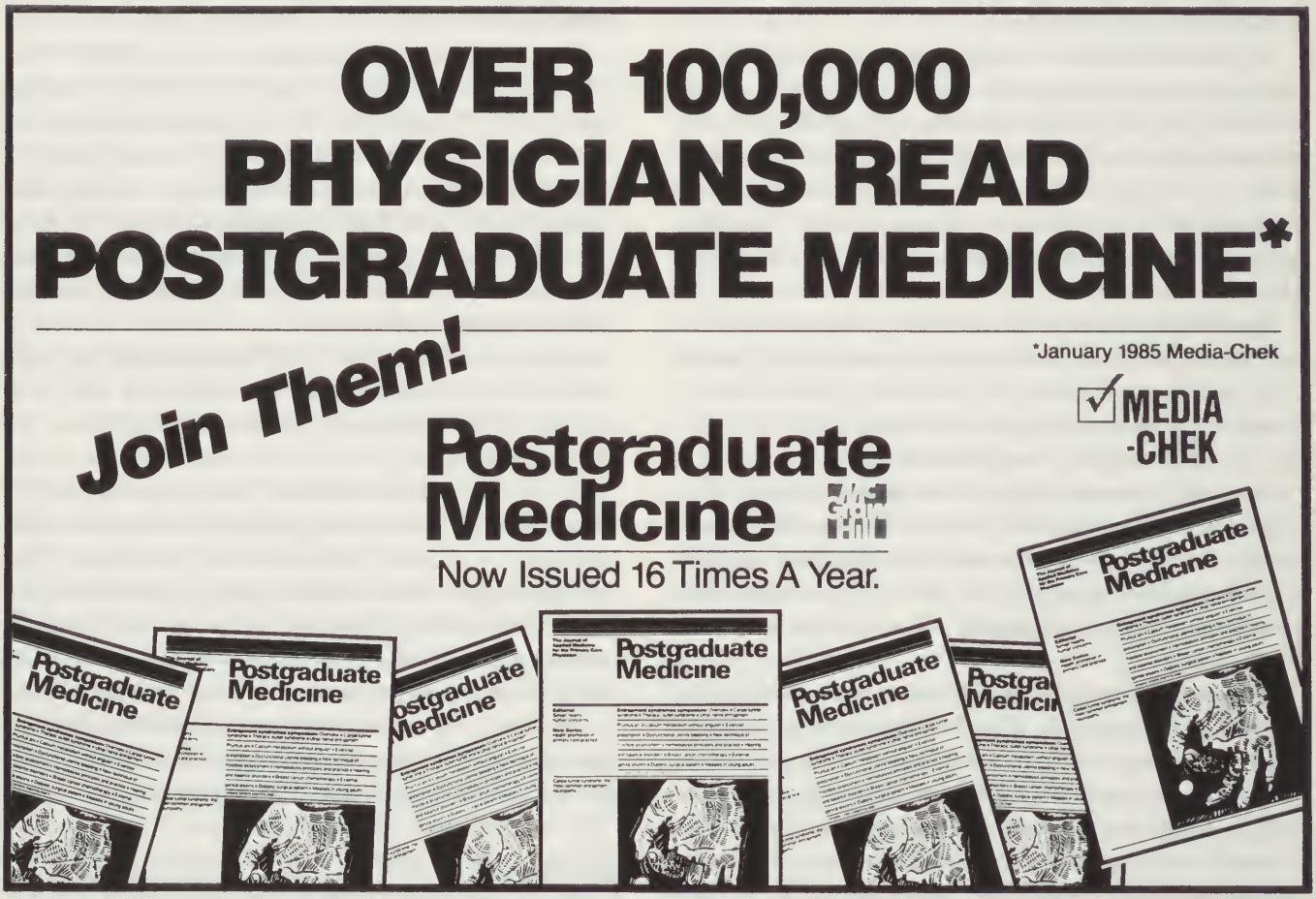
Closer attention will be given to the Health Care Protection Act of 1985[22] because it attempts to prompt state action. Briefly, the Act would provide financial incentives for states to establish health care malpractice screening panels in accord with uniform federal standards. The bill would also limit the amount of attorney fees which can be awarded in such a malpractice case, and introduces federal standards for health care facility risk management programs.

Since up to $25 million would be authorized annually to fund state activities under the bill, in a time of financial shortfall states may be inclined to pursue this sort of program.

In closing I observe that it is not that difficult to relate many of the events, proposals, cases and laws pertaining to medical malpractice in Kentucky. What does not appear on the pages of such a chronicle is the emotion-charged response that often accompanies discussion of these matters. That emotion can have a bearing on these issues far exceeding what logic and reason would lead you to anticipate. An ability to insulate oneself from that emotional pressure seems all important if we are to find a cure for this most recent "crisis."

References **1.** *McGuffey v. Hall* 557 SW2d 401 (Ky. 1977). **2.** "No law enacted by the General Assembly shall relate to more

than one subject, and that shall be expressed in the title," etc. **3.** KRS 304.40-270. **4.** *McCoy v. Western Baptist Hospital*, 628 SW2d 634 (Ky. App. 1981). **5.** KRS 304.40-208; 304.40-290; 304.40-300; 304-40-310; 304.40-320. **6.** AMA Report #2, Professional Liability in the 80s, p. 13. **7.** KRS 413.140. **8.** KRS 413.170. **9.** AMA Special Task Force on Professional Liability, Report #2, pg. 19. **10.** Overturned in Florida, Idaho, Illinois, New Hampshire, North Dakota, Ohio. **11.** "The General Assembly shall have no power to limit the amount to be recovered for injuries resulting in death, or for injuries to person or property." **12.** *McGuffey v. Hall*, supra. **13.** "The AMA is Wrong - There Is No Medical Malpractice Insurance Crisis," by Tom Goddard, Public Affairs Department, ATLA. **14.** AMA Report #2, pp. 22–23. **15.** "All courts shall be open and every person, for an injury done him in his lands, goods, person or reputation, shall have remedy by due course of law, and right and justice administered without sale, denial, or delay." **16.** See footnote 11. **17.** *Kennedy vs. Ziesmann*, 522 F. Supp 730 (1981). **18.** See footnote 1. **19.** *Blair v. Eblen*, 461 SW2d 370 (Ky. 1970). **20.** S. 41, 98th Congress. **21.** H.R. 5400, 98th Congress. **22.** S. 175. 99th Congress.



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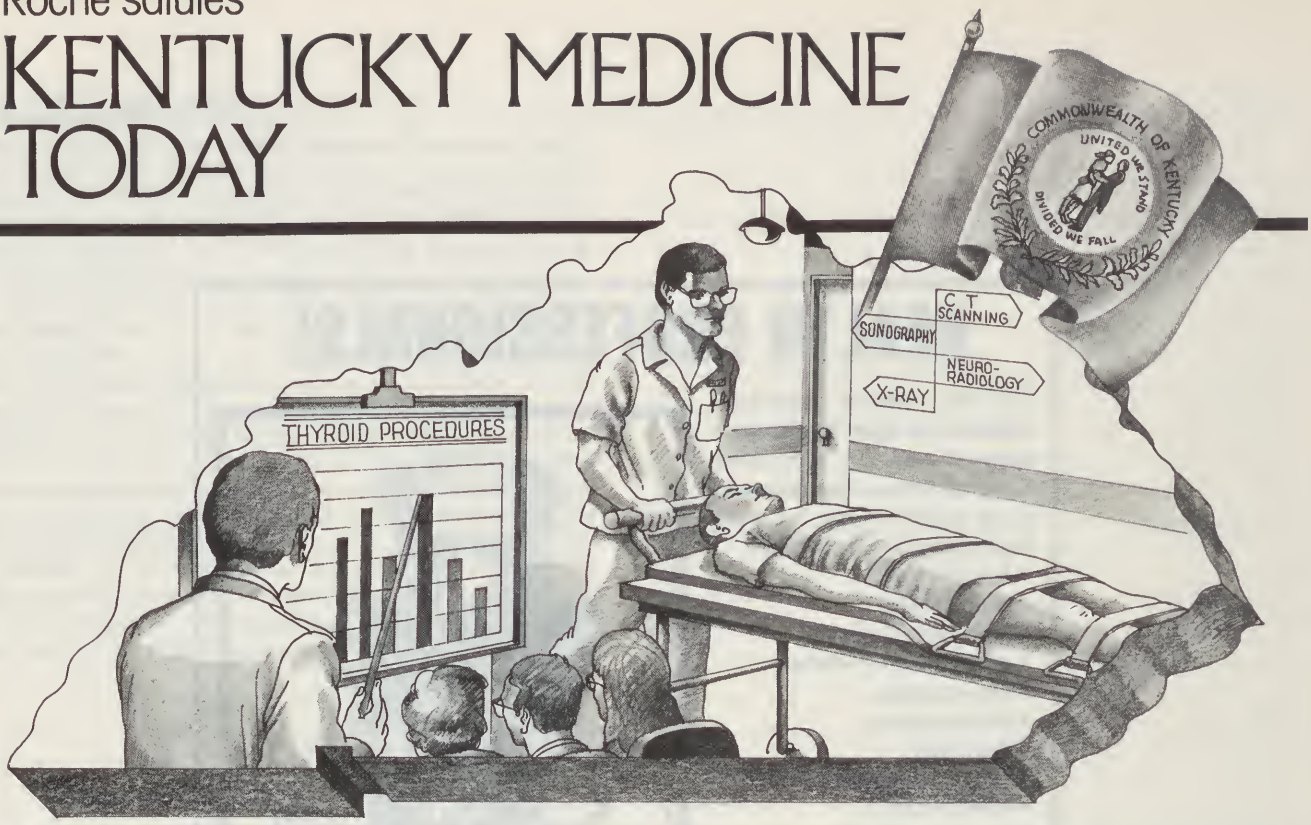
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KENTUCKY MEDICINE TODAY



Thyroid surgery subject of study covering 24 years

In a dedicated effort to assess early and late complications after thyroid operations, members of the Department of Surgery, University of Louisville School of Medicine, recently analyzed records of 407 operative procedures going back to 1958. Overall, their findings were reassuringly positive. A mortality rate of 0.7% was found and attributed to coexisting disease, advanced patient age and delayed treatment. Permanent hypoparathyroidism, probably related to disrupted blood supply, appeared in only 0.9% of cases.[1] This and other statistically significant data indicate that operative procedures on the thyroid carry an acceptably low morbidity and mortality—findings that are a Kentucky contribution to medical science.

See-through stretcher eliminates dangerous transfers

A complete radiographic evaluation of a spinal fracture usually necessitates numerous transfers of the patient between the stretcher and various x-ray and computed tomography tables. Doctors at Audubon Hospital in Louisville reasoned that these potentially dangerous transfers could be eliminated if they had a radiolucent stretcher. So they set to work and developed exactly what was needed: a stretcher strong enough so that the patient's spine is well supported and radiolucent enough so as not to degrade radiographic images. The patient can remain in the same position during the entire radiographic examination of a spinal fracture, including plain x-rays and computed tomographic and myelographic studies.[2] Further, the team designed a traction-device attachment making it possible to apply traction during myelographic examination or to accomplish a closed reduction of a cervical fracture. By obviating the need for accessory traction devices, they have produced a self-contained unit for such procedures.

The strength and radiolucency of the stretcher are assured by its construction with newly developed organic materials—a rigid core of polyimide foam and a carbon fiber-epoxy resin (or graphite-epoxy) material for the outer skins of the board. Four nylon straps with plastic buckles are used to secure the patient to the stretcher across the shins, thighs, hips and torso. Plastic handles attached to these straps on each side are used to lift the stretcher. Eight polyurethane stops on the undersurface hug the edge of the CT cradle to prevent lateral and vertical movement during scanning.

This ingenious self-contained unit makes things easier for all at Audubon, including orderlies, nurses, physicians and, especially, the patients, who now are taken off the stretcher only once—when they are placed on an operating table, a bed or a fracture frame.

References: 1. Max MH, Scherm M, Bland KI: *South Med J 76*:977-980, Aug 1983. **2.** Jelsma RK, *et al: Surg Neurol 22*:167-172, Aug 1984.

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*Feighner JP, *et al: Psychopharmacology 61*:217-225, Mar 22, 1979.

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Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, paratid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly.
Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.
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SPECIAL ARTICLE

Physician Criteria For Evaluating Alternative Delivery Systems

CAROL ANN SCHEELE

The following criteria and questions were developed as a result of a survey of Kentucky alternative delivery systems (preferred provider organizations and health maintenance organizations) conducted in December 1984, and a review of promotional materials sent to physicians by organizations seeking their participation in various alternative delivery systems. These documents indicate that physicians have not, as a rule, been provided with sufficiently detailed information to make informed choices. The purpose of the criteria is to suggest basic information which the physician can reasonably expect to obtain at staged intervals from the organizations or plans soliciting his participation. It is anticipated that the receipt of this information will assist the physician in evaluating the potential viability of the plan, both from the perspective of its suitability for the physician's practice and the ability of the plan to be successful in an increasingly competitive health care environment. The criteria have been organized into seven areas including: (1) Corporate Structure; (2) Financing/Capitalization; (3) Health Services Delivery System; (4) Reimbursement/Payment; (5) Legal Considerations; (6) Organization/Management; and (7) Marketing.

Corporate Structure

1. Who are the members of the Board of Directors? What are their qualifications and professional credentials?

2. Request copies of the plan's By-laws and Articles of Incorporation.

3. What are the purposes, goals and philosophical orientation of the organization? For example, is the primary purpose to control health care costs? To offer competitively priced health services? To protect the private practice of medicine? Maximize (or minimize) hospital utilization? To promote high quality medicine? To reinstate the primary care physician as a "gatekeeper?" To maximize profits? To consolidate the position of multispecialty group practices? To redirect profits away from commercial health insurance companies?

4. How is voting control divided on the Board of Directors? Do physicians have majority voting control? Is voting control allocated according to respective financial contributions to the organization? If not, how will physician or investor interests be protected within the organization?

Financing/Capitalization

(Note: HMO's require $2-3 million in initial capitalization and start-up funds and an 18-24 month period and 7,000-15,000 enrollees to reach a breakeven point. PPO's may require lesser initial capital outlays.)

1. Do physicians have the opportunity to invest in the plan, either through a general or limited partnership, stock options (equity ownership) or profit-sharing?

2. Are hospitals the major investors in the plan? What implications does this have for the plan's hospital utilization controls, either through incentives in the plan to use specified hospitals or incentives for physicians to reduce hospitalization?

3. Is the organization now or planning to be for-profit or non-profit? If for-profit, will it be a closely held or stock bearing corporation? If stock bearing, will physicians have the first option to purchase stock? How will the stock be traded? Will there be an intrastate or interstate stock offering?

4. (a) If the organization is controlled by a national investor-owned corporation, who is on the Board of Directors of the national corporation? What is their philosophy of HMO development and ownership? Who owns

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a controlling interest in the corporation? What other plans does the corporation own? What other health care services are provided by the organization? (b) Is the national corporation owned by a parent company? Who is on the parent's corporation Board of Directors, who owns controlling interest, and what other health services are provided by the parent corporation?

5. If the organization is controlled by a national corporation, what is likely to occur if the national corporation is purchased? Are the physician contracts assignable to the purchasing corporation or will they be negotiable at the time of purchase?

6. How much are the projected premiums for the plan and how do the premiums compare with other plans? Is the plan competitive? When does the plan anticipate reaching the breakeven point? How much are initial capitalization, and start-up costs?

7. Request copies of the pro forma balance sheets, showing projected assets and liabilities.

Health Services Delivery System

1. Which other physicians have agreed to participate in the plan? What are their professional credentials and reputations? What were the selection criteria used in inviting physicians to participate? Do the participating physicians, in fact, conform to the established selection criteria?

2. If selection criteria were used in inviting physicians to participate, did the criteria include such areas as hospital utilization by the physician, length of stay by diagnosis, use of ancillary services, drug profiles, etc.?

3. What lines of business are being pursued? Will the plan offer traditional health insurance as well as their alternative plans? What HMO/PPO model is being used? For example, staff model, group model, independent practice association, primary care network model, or a combination of models?

4. What services are being offered by the plan in its benefit package? Is more than one benefit package contemplated? Will the plan affect the physician's practice by, for example, offering only limited services or procedures?

5. What quality assurance mechanisms will be used? Will there be peer review by physicians? What medical review criteria will be used? Will quality assurance procedures include chart reviews? Will patient outcomes be reviewed? If there is a Quality Assurance Committee, who are the members, or how will they be selected?

6. How will patient or physician grievances be handled? Is it possible for the physician to request disenrollment of a patient from his or her care? Is there a patient "Bill of Rights" or similar document? If so, request a copy.

Reimbursement/Payment

1. (a) How will physicians be paid? Fee-for-service or capitation? If payment is on a fee-for-service basis, will discounts be requested? Will physicians be salaried? What is contemplated for the future regarding payment of physicians? (Are there any guarantees that the form of payment for physicians will not change?) (b) Will there be physician risk-sharing? What form will physician risk sharing take? (c) Will there be a physician withhold? (For example, 20% of fees withheld to be refunded at the end of the year based on hospital utilization experience.) If there is a physician withhold, will primary care physicians be pooled with specialists? If there is a physician withhold, when will the settle-up be made? (d) Is there a separate hospital pool?

2. Is there any opportunity for physician equity ownership or profit-sharing? Is there a physician membership fee? Is there a membership fee for participating specialists?

3. What is the duration of the physician agreement? What will be the criteria for renewal?

4. What statistical criteria will be used for evaluating physician profiles? Will underutilization as well as overutilization be monitored? Will there be sanctions? If so, is the only sanction termination from the plan, or are intermediate sanctions available?

5. How will hospitals be paid? Will there be hospital risk sharing? Is the plan requesting discounts from participating hospitals?

6. How and to what extent will the physician be protected from the financial consequences of adverse selection (i.e. the high risk patient)? Will there be reinsurance, and what will be the maximum physician liability?

7. If a primary care network model is being used, how will patients select their primary care physician? If the patient has no preference, what decision criteria will be used to assign the patient to a physician? Are primary care physicians limited in their referrals to specialists? Will they be required to refer only to plan-affiliated specialists? What are the financial incentives for physicians to limit their referrals to specialists?

8. Regarding cost containment provisions:

a. Will the plan include pre-authorization or pre-certification for elective hospital admissions? Which criteria will be used? Who will be conducting the preauthorization review? Are lengths of stay established prior to hospital admission?

b. Will the plan include mandatory outpatient surgery? Which procedures will be required to be performed on an outpatient basis? What will be the penalty for performing the mandatory outpatient procedures on an inpatient basis? If exceptions will be made, what criteria will be used?

c. Will the plan include pre-admission testing requirements? Will weekend admissions be prohibited?

d. Will the plan include second opinion surgery requirements? Will a panel be convened for this purpose? Can the patient obtain the second opinion from a non-participating physician, and if so, will that be a reimburseable expense?

e. What other cost containment provisions are contemplated by the plan?

Legal Considerations

1. Has the plan received its Certificate of Authority and been licensed by the Kentucky Department of Insurance? Under what chapter of the Kentucky Revised Statutes? Is a copy of the Certificate of Authority available for my review?

2. Has the organization been licensed by the Cabinet for Human Resources? Request a copy of the licensure report stating any deficiencies.

3. Early in the negotiations, request a copy of the Physician Contract. What are the provisions of the Physician Contract? Who drafted the physician contract? Does the contract represent the interests of the plan or the interests of the participating physicians? Request a period of at least 30 days to review the physician contract.

4. Is the physician agreement exclusive? Can the physician participate in other plans?

5. What agreements have been concluded with hospitals, health insurance companies, claims processing companies and other organizations.

6. Does the plan carry its own malpractice insurance? Will it provide participating physicians with additional malpractice insurance? Does the organizations' Board of Directors carry liability insurance?

7. Request a copy of the subscriber agreements (policies). Have the subscriber materials been reviewed by an attorney?

8. What are the plans of the organization to reduce the risk of insolvency? What is the physician's liability in the event of plan or corporate insolvency?

9. Does the organization plan to apply for HMO or competitive health plan status under the Medicare program?

10. Has the plan considered advertising prohibitions, corporate practice of medicine statutes and possible antitrust violations? What is the opinion of the plan's attorney on these matters?

Organization/Management

1. Request a copy of the strategic planning document or business plan.

2. What are the qualifications of your management staff or management firm? What are their salaries?

3. Will there be a medical director and who will he work for? Will the medical director be chosen from among the ranks of participating physicians? What will be his salary? Will he be full time and accessible to the participating physicians.

4. Who is the organization's accounting firm? Request a copy of the audited financial statement.

5. If physician payment is fee-for-service, how will claims processing be handled? What is the expected turnaround time on payment of claims?

6. If physician payment is on a capitation basis with a physician withhold, will physicians be provided with monthly utilization statements in order to assess their own performance?

Marketing

1. What is the geographic scope of the plan? What is the plan's target population? Are Medicare or Medicaid recipients expected to enroll?

2. Which employers will be contacted regarding participation in the plan? Which employers have agreed to participate thus far? Is there an employer group size limitation?

3. Request copies of the promotional materials to be used in the plan. Are physician's names on the materials? Are physicians expected to participate in the marketing of the plan?

4. Which media will be used in promoting the plan?

5. Is an advertising firm being utilized? What strategy will be employed by the advertising firm?

CHANGING ADDRESS?

Please let us know at least two months before changing your address.

Send new address to:

Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Ky. 40205

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance, poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

Book Reviews

Current Medical Diagnosis and Treatment, 1985

Marcus Krupp, Milton Chatton David Werdegan

Lange Medical Publications

Twenty three revisions since 1962, multiple authors from academia, and the oversight of the same senior editors have kept this book current, yet dependable. Some 1.3 million books and multilingual audiences make this medical reference one of the most widely read references. Yet the editors humbly insist that the readers use the literature including the classic texts for sophistication.

Little has changed, yet much of the information is very current. Chapters are organized first by introducing the physical exam, then the anatomical divisions. Acute epiglottis and airway obstruction have been rewritten, as have chapters on gynecology and obstetrics. New authorship of the nervous system and its disorders and the inclusion of magnetic resonance imaging give this section a new look. Ever evolving endocrinology has been revised. AIDS, with it menacing involvement of more and more people, is certainly germane. Then chapters on nutrition, infectious disease with its new antibiotics and antiparasitics, therapeutics with recent diuretics, tamoxifen, *etc*, genetics, malignancy and immunology with the newly developed immunosuppressives comprise the bulk of the book.

Acquiring this book on a regular basis will be excellent current medical education.

Play Safe: How to avoid getting sexually transmitted diseases.

Bea Mandel, Byron Mandel

Having been at the helm of the VD National Hotline, the authors Mandel distill from their callers the most commonly asked questions. Each page is structured with the querie in bold type and the explanation in one to several paragraphs. Simple language is used and the few medically derived words are glossaried in the back. Even an index is included to increase the quick reference to specific subjects.

Apparently the incidence of STD's is increasing exponentially, through all social castes and this book wants to stem the tide with information rather than government edict like China has. As an audience, children to senior adults are spoken to, with the language apropos of the lay public.

"Warts" as a term is used to describe morphology and literally for condylomata and molluscum. Instead of pediculosis "crabs" is frequently written, an unfortunate term describing the similarity to crustacea. Spirochetes are not bacteria. Vitamins and minerals have never been scientifically demonstrated to increase resistance, though obviously isolated or multiple deficiencies are resolved with specific vitamins.

Advice for the public takes the form of discussing STD and knowing your partner, being selective, using condoms and knowing the manifestations of the diseases.

Perhaps the sexually active public will take to this manual, if for no other reason than self preservation.

Physicians's Handbook

Marcus A. Krupp, Lawrence M. Tierney, Jr., Ernest Jawetz, Robert L. Roe, and Carlos A. Camargo

Lange Medical Publications, 1985

More appropriate for this handbook, the subtitle of encyclopedia might be used. Packed into 800 pages, the inside of both front and back covers, are a myriad of facts, tables, equations, lists and explanations for the successful marriage of clinician and the laboratory.

Offered to students of the health sciences and graduate physicians and nurses, this grab bag of information bridges the years of nascent study to the front line.

Published trienally and with the editors from general medicine, microbiology, endocrinology and laboratory research, this handbook can be continuously modernized. MR imaging and CT scanning are now juxtaposed to their ancestral yet still pertinent chest X-ray and KUB. Standard values of blood, pleural, urinary, CSF, *etc*, fluids are presented alone and with accompanying interpretation of their variation from normality.

Procedures for obtaining clinical material from patients are described with black and white diagrams, instruments listed, precautions warned and transportation to destination emphasized.

Away from the battlefront of acute medicine, the physician will have this handbook to order immunizations and schedule protocol for travel. Suggestions for nutritional supplementation or alternate diet schedules are helpful. Handy lists of toxins and poisons, their sources and antidotes, give another dimension and comfort. A distillate of the many drugs available is developed for starting the therapeutic selection process.

Such a handbook deserves its popularity in America and its multilingual editions bring it to the world. Modestly priced and easily hand held, this book feels good by one's side.

Premenstrual Syndrome

A Clinic Manual

H. Jane Chihal M.D., Ph.D.

Crative Informatics, Inc. 1985

PMS has quickly been adopted for a myriad of problems associated with the menstrual cycle. As a manual this book takes license with this material avoiding the formality and bulk of a book. That several definitions, many chemical instigators and the spectrum of psychological causes are associated with PMS makes such a staccato format a good fit. In fact the structure of the book is unique with a centered two page contents section label with black edges whose corresponding black edge in the text marks the appropriate material.

This is not a how-to manual alone although precise methods of workup and treatment are given. Interspersed are vignettes on various chemical abnormalities and their relationship to PMS.

Even a psychometric table is supplied for assessing the state of mind, so to speak.

All inclusive, everything you ever wanted to know, a handbook, etc.—this manual tries to appeal to the PMS interested public. Semiannual updating is promised by the author and this subject seems to need it.

Certainly this manual will appeal to many who are now grappling with the diagnosis and treatment of PMS.

Managing Incontinence

Cheryle B. Gartley

Jameson Books, 1985

Cheryle Gartley has edited a guide to living with loss of bladder control. Incontinence as a problem for public awareness and consideration has heretofore not been formally discussed. Medical texts dispassionately deal with incontinence, a differential diagnosis of which includes neurological, psychological, endocrinological, infectious disease, trauma, embryological, *etc*. "Managing Incontinence" wants to be the "Spock" book of incontinence.

After zealous introductions by the editor and other contributors, the book begins with intimate interviews. People incontinent for any reason and their families recount their difficulties in handling the mechanics and psychology of bladder problems. Then several psychologists interject recent popular catchwords—"dealing with anger," "communication," "coping," *etc*. Similar terms and their explanations are found in todays magazines, Ann Landers column, every sex therapy manual, *etc*. Nevertheless the reader, if an amateur at psychology logo, will find these nifty explanations palatable and usable.

Urological information is briefly presented, with cursory descriptions of surgical corrections, implantation of devices and pharmalogical control.

Delicately, sexual practice is discussed and practicalities explained in a most acceptable fashion. In fact incontinent men and women are able to function sexually and encouraged to make adjustments with their mates.

Two appendices include a well illustrated address supplying catalogue of products for incontinent people and a questionnaire with the foreboding title of "Emotional Adjustment Questionnaire" in the contents section. Yet the questions are in survey form to be digested by the Simon Foundation, an information distributing outfit founded by the book's editor.

Bibliographic sketches of the contributors and the editor's intimates give the end of the book a sense of being a thank you note.

Nevertheless, for the physician caring for incontinent people, for the person faced with bladder incompetence and for the loved ones who feel the pain of the afflicted, this book is a warm guide to handling incontinence.

Stephen Z. Smith, M.D.
Assistant Scientific Editor

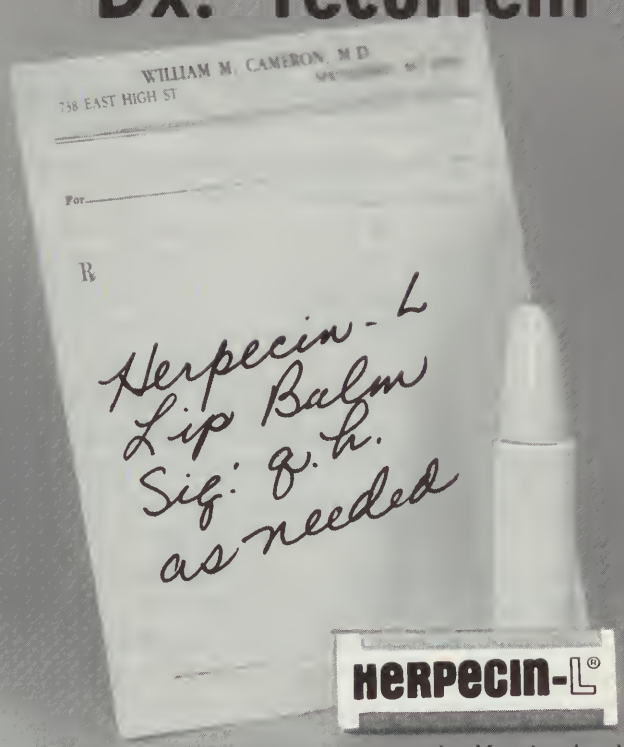
NEWS

Photos of missing children will be circulated with the *Journal of the Kentucky Medical Association* and the "Communicator," the official newsletter of the Kentucky Medical Association. Monthly circulation of both publications reach over 4,000 Kentucky physician offices. The Association will be working with the National Center for Exploited and Missing Children and other local groups to obtain photos and information on missing children.

It is hoped that Kentucky physicians and their office personnel will assist in identifying missing and exploited children and report their location to authorities.

The KMA Community and Rural Health Committee recommended this action which was approved by the KMA Board of Trustees on April 18, 1985. The Committee has also developed a brochure specifically designed to assist medical and health personnel in identifying abused children. The brochure also lists a toll-free number to report suspected abuse and procedures to be implemented by the health professional.

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In Kentucky HERPECIN-L is available at all *Begley, Revco, SupeRx, Taylor Drug Stores* and other select pharmacies.

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All advertisements must be approved by the Board of Editors. Deadline is the first of the month two months preceding the month of publication. Charges for advertising are: 20¢ per word. Average word count: 7 words per line. $5.00 minimum. Send payment with order to: The Journal of KMA, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

PHYSICIANS: General Surgeons/Internal Medicine. Practice opportunities available in eastern Kentucky. Cross coverage available. Must be Board Eligible. Generous practice incentives. Send C.V. to: Professional Relations, 16633 Ventura Blvd., P.O. Box 1800, Encino, CA 91436 or call (818) 990-2000.

SOUTHEASTERN KENTUCKY—Moonlighting opportunity in moderate volume emergency department. Attractive hours. Malpractice provided. Contact: Emergency Consultants, Inc., 2240 South Airport Road, Room 31, Traverse City, MI 49684; or call 1-800-253-1795 or in Michigan 1-800-632-3496.

PSYCHIATRIST—ASSOCIATE CLINICAL DIRECTOR position available for a Board certified/eligible psychiatrist for a 20 bed inpatient psychiatric unit at St. Claire Medical Center in Morehead, Kentucky. Position would involve affiliation with the Morehead Clinic, a private, multi-specialty group composed of fourteen physicians. Compensation will include salary plus comprehensive benefit package including life, health, and disability insurance; vacation leave; continuing education leave and allowance; liability insurance; family health care; relocation and automobile allowance. Respond with C.V. to: Personnel Recruiter, Dept. KNY, Mental Health Management, Inc., 1500 Planning Research Drive, Suite 250, McLean, VA 22102 or call Maureen at 1-800-368-3589.

Emergency Medical Care Seminar Highlights

The EMCS was held June 4-6, 1985, and more than 500 people attended. The program included luncheon presentations by James O. Page, J.D., California, author of *Paramedic* and George R. Nichols, M.D., Louisville, Kentucky's Medical Examiner.

Morning sessions featured general presentations by guest speakers while afternoons were devoted to table discussions and workshops.



E. Truman Mays, M.D., Somerset, Chairman of the Emergency Medical Care Commission



Exhibitors were on hand at this year's meeting.



Robert H. Stewart, M.D., Louisville, spoke on "Chemical Abuse in Youths."





The Emergency Air Transport staff were available to answer questions from seminar participants.

Personal Financial Planning

A successful company maintains that success through careful attention to its financial needs and resources. Plans for its financial future are made long in advance. But often, we as individuals commit very little attention to personal financial planning.

Take advantage of this opportunity to learn about establishing a secure financial foundation. Without prejudice towards particular financial options, you will learn the range of instruments available and be able to better choose those best for you.

As a special benefit of this unique workshop, you are invited to bring your spouse to share the learning experience at no additional cost.

This workshop is designed to teach you the vocabulary and give you knowledge necessary to map out your financial objectives and start on a course to achieve them. It will help you recognize not only the problems you face, but also the opportunities you have for maximizing your after-tax net worth.

Evaluating the resources you have and the potential they represent is the first step in developing a financial plan. In this workshop, you will be given the tools and the help of three experts to do that evaluation and to determine your goals. You will learn how to choose financial advisors and will become better able to take advantage of their knowledge because of the understanding you yourself will gain.

If you need answers to any of the following questions, this practical, easy to understand workshop could be very important to you:

- **Setting Financial Goals**
  How do I realistically establish goals which reflect my true values and are achievable with my resources?
- **Protecting Income and Property**
  When do I need insurance and how can I control the cost?
- **Reducing Taxes**
  What can I do to legally and effectively cut my income taxes today and minimize estate and gift taxes in the future?
- **Investing Strategically**
  Which types of investments are right for me in achieving my objectives?
- **Achieving Financial Independence**
  Am I doing what I have to do to get where I want to go?
- **Evaluating Alternatives**
  Am I using the right vehicles—comparing options such as IRA, Keogh, Qualified Pension and Profit Sharing Plans, Personal Tax Shelters, etc?
- **Using Company Benefits**
  Am I taking advantage of the opportunities through my company to provide benefits and acquire assets most economically?
- **Conserving Assets**
  Are my wills, trusts, buy-sell agreements and other documents designed to help me conserve and transfer assets economically?

Personal Financial Planning Seminar

General Information

Schedule: The seminar hours are from 9:30 a.m. to 4:30 p.m., Sept. 29, 1985. Classes will be held at the Galt House East in Louisville.

To Register: Early registration is recommended. You may phone your registration in to (502) 456-6400. For particular seminar-related questions, please ask for Jerry Hurt.

Fee: The tuition fee includes the cost off all materials, workbooks, and luncheons. Spouses are invited and encouraged to attend. The registration fee is $150. A 10% discount will be given to those practices registering 3 or more persons on one registration.

Tax Deduction may be allowed for educational expenses including registration fees to maintain and improve professional skills (Sect. 212, Internal Revenue Code; Treasury Reg. 1.162-5.)

CEU's: Continuing Education Units are awarded to participants who fulfill the attendance/ participation requirements of the program.

Cancellations: Cancellations made less than 5 working days prior to the beginning of the seminar are subject to a 25% cancellation fee. Another person may be substituted up to the start of the workshop. Refunds will not be granted after the seminar commences. If insufficient enrollment necessitates cancellation of seminar, full tuition will be refunded.

(Clip and Mail Today)

Registration Information: Make check payable to Christen, Brown & Rufer. Mail all registrations and payments to Christen, Brown & Rufer, CPA's Attn. PFP, P.O. Box 32360, Louisville, Kentucky 40232.

Registration Form

Name

Spouse's Name (if attending)

Organization or Practice Name

Address

City State Zip

Business Phone Home Phone

In Memoriam

Marjorie W. Rowntree, M.D.
Louisville, KY

Doctor Marjorie Rowntree, a retired staff director in the Louisville and Jefferson County Health Department, died January 30, 1985, at the Highlands Baptist Hospital in Louisville, Kentucky. She is survived by her husband, Gradie R. Rowntree, M.D.

In 1936, she was employed by the Kentucky State Department of Health, and in 1937, she accepted a new position as director of East Louisville Health Center, a position she held for 11 years before moving to the central office as director of the divison of Maternal and Child Health. She was director of the department's divisions of school health from 1948 until she retired in 1966. During this period she was assistant professor of Preventive Medicine and Public Health at the University of Louisville School of Medicine.

Doctor Rowntree was the former Marjorie Wulff. She was born in St. Paul, Minnesota, and received her Bachelor of Science and Doctor of Medicine Degrees from the University of Minnesota and Master of Public Health degree from Johns Hopkins University.

She was a former board member of the River Region Mental Health and Mental Retardation Association and the Louisville Area Mental Health Association. She was a Fellow in the American College of Preventive Medicine and was Louisville's president of the American Association of University Women from 1943 to 1945. She was a member of the University of Louisville Women's Club and Highland Presbyterian Church.

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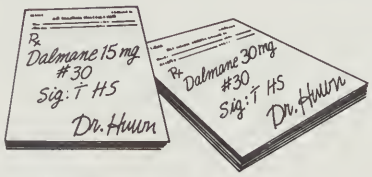
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References: 1. Kales J, *et al: Clin Pharmacol Ther 12*:691-697, Jul-Aug 1971. **2.** Koles A, *et al: Clin Pharmacol Ther 18*:356-363, Sep 1975. **3.** Koles A, *et al: Clin Pharmacol Ther 19*:576-583, Moy 1976. **4.** Koles A, *et al: Clin Pharmacol Ther 32*:781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR: *J Am Geriotr Soc 27*:541-546, Dec 1979. **6.** Dement WC, *et al: Behov Med*, pp. 25-31, Oct 1978. **7.** Kales A, Kales JD: *J Clin Psychopharmacol 3*:140-150, Apr 1983. **8.** Tennant FS, *et al:* Symposium on the Treatment of Sleep Disorders, Teleconference, Oct 16, 1984. **9.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mor 1977.



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Contraindications: Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patients to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Withdrawal symptoms rarely reported; abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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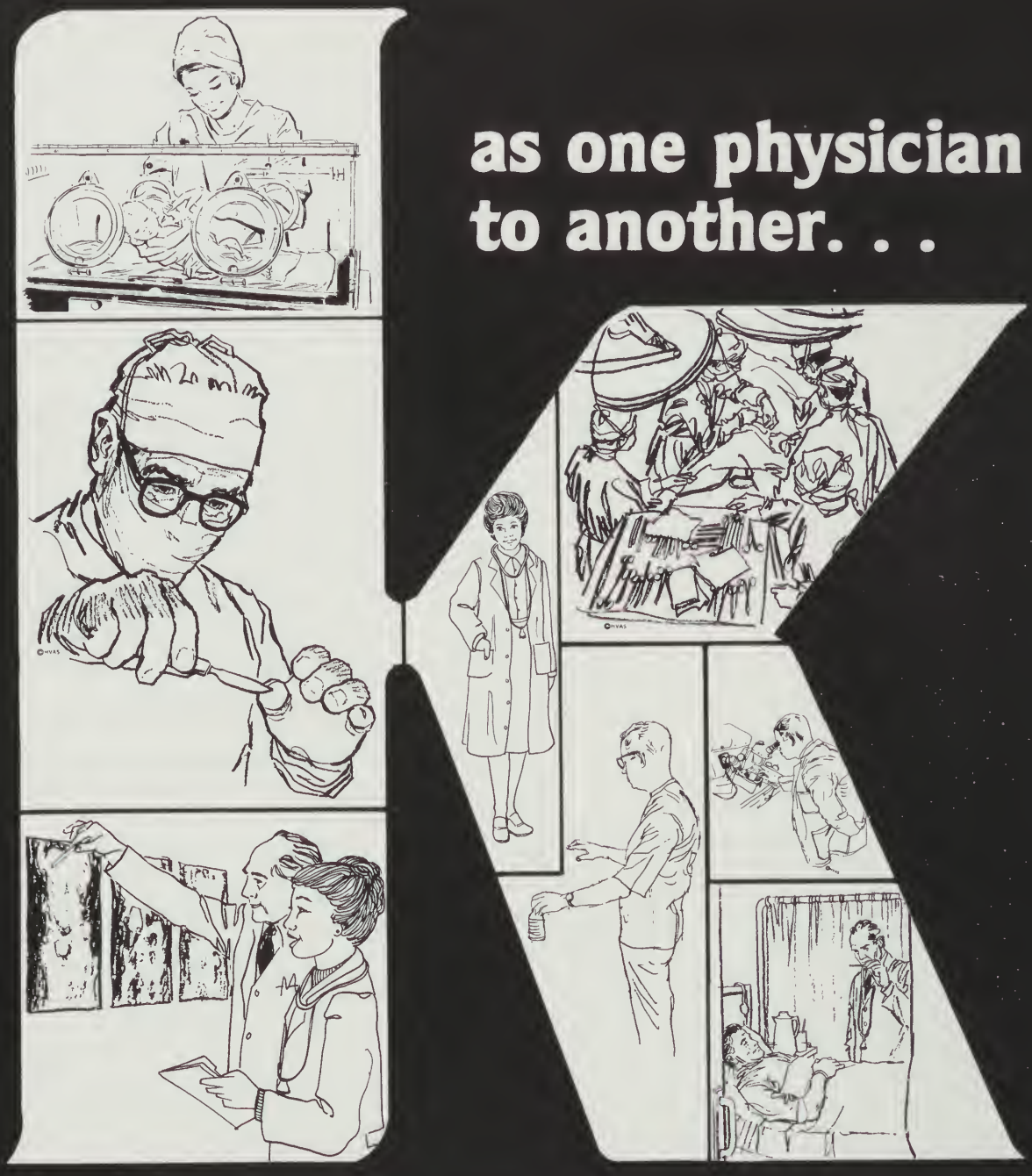
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Wally O. Montgomery, M.D.
KMA President

Volume 83, Number 10 October 1985



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Hospital Medical Staff Section

Transition is a good word but easier to write than accept. Just as one cannot go back to the house where he lived as a child and see it as he did then so we cannot reverse our lives and relationship to parents, family, or even hospital. For almost everyone in the practice of medicine, hospital medical staff membership is important. There is a definite transition in the physician's relationship to his hospital.

Over the past few years some of the practicing physicians and organized medicine's big headaches have resulted from controversies with hospitals. Each new proposal by the JCAH, HCFA, HHS and decision by the courts has caused havoc and cries of wanting to return to yesterday when membership on the medical staff of a hospital was much less demanding and less frustrating.

A few of you throughout the state have attended the hospital medical staff section of the AMA which takes place before the annual meeting in June and the interim meeting in December. This section has become an integral part of policy development by the House of Delegates of the AMA as evident by the multiple resolutions they submit to the House.

Now, Kentucky physicians through the KMA House have an opportunity to send delegates to our own HMSS which meets next month in Louisville at the KMA headquarters building. I urge each hospital medical staff in the state to send a representative to this meeting so that your concerns can be discussed.

In June 1985 at the annual meeting of the AMA-HMSS section in Chicago many issues were discussed and many resolutions submitted. A report of the *Joint Task Force on Hospital Medical Staff Relationships* published in February 1985 and jointly authored by lawyers of the AMA-AHA was criticized for not going far enough in declaring the medical staff's "ultimate authority" in the hospital. Each hospital medical staff member should obtain this report from the AMA.

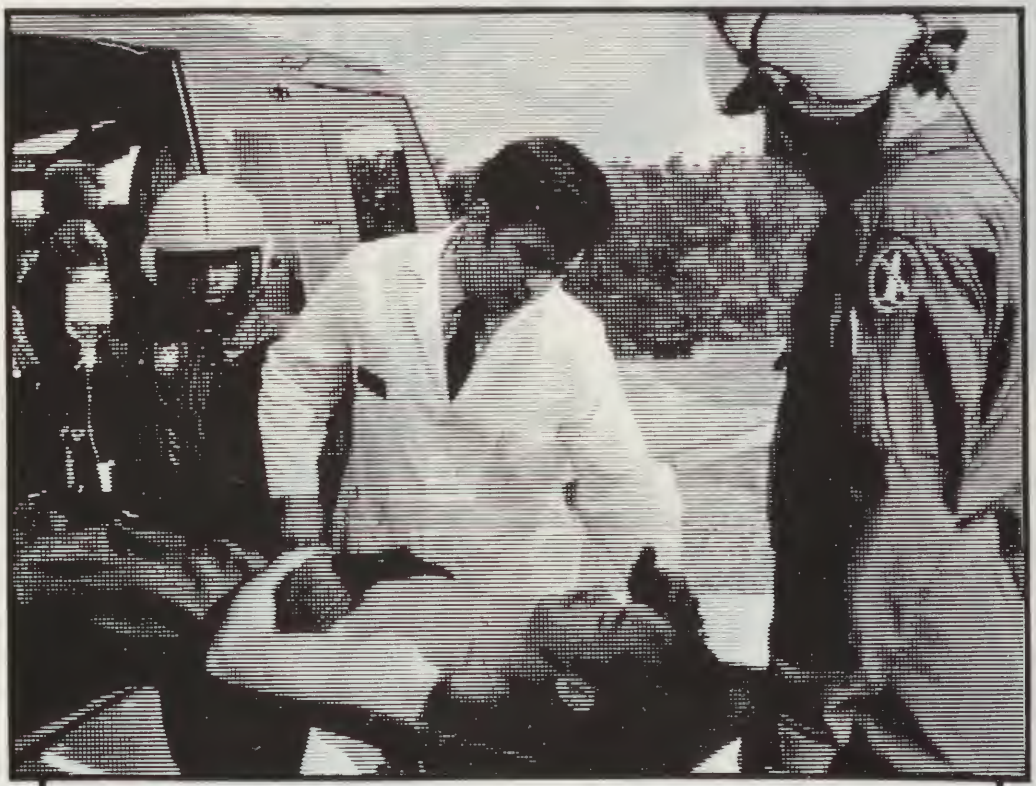
The HMSS also pointed out a situation in California in which certain physicians were reimbursed by their own hospitals for under utilization of services which allowed a larger DRG to the hospital. Another concern pointed out was double billing for reading of EKG's and x-rays by the E.R. physician and later the radiologists and cardiologists.

Other issues addressed were medical liability, guidelines regarding appropriate out-patient surgery utilization, monitoring of DRGs related to physicians hospital charges, and investigation of suits being brought by inner city hospitals demanding larger DRG adjustments. Hospital staff privileges for nonphysicians has always been a much discussed professional and legal issue.

You probably have other concerns which need to be voiced. Send your representative to the HMSS and let us work together on these problems.

Wally O. Montgomery, M.D.
KMA President

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Chewable Tablets

5 mg 10 mg 20 mg 30 mg 40 mg
Oral "Swallow" Tablets

40 mg
Sustained Action "Swallow" Tablets

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See following page for brief summary of prescribing information.

SORBITRATE®
(ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

INDICATIONS AND USAGE: SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

CONTRAINDICATIONS: SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

WARNINGS: The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

DOSAGE FORMS AVAILABLE: Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

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STR-2282

Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee



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Once-daily INDERIDE® LA

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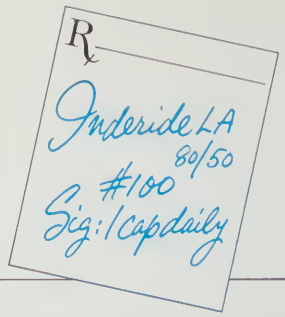
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Please see following page for brief summary of prescribing information.

Once-daily
INDERIDE® LA

Convenience without compromise
One capsule—Once daily





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BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)*

INDERIDE® LA Brand of **PROPRANOLOL HYDROCHLORIDE (INDERAL® LA) and HYDROCHLOROTHIAZIDE (Long Acting Capsules)**

No. 455—Each INDERIDE® LA 80/50 Capsule contains:

Propranolol hydrochloride (INDERAL® LA)	80 mg
Hydrochlorothiazide	50 mg

No. 457—Each INDERIDE® LA 120/50 Capsule contains

Propranolol hydrochloride (INDERAL® LA)	120 mg
Hydrochlorothiazide	50 mg

No. 459—Each INDERIDE® LA 160/50 Capsule contains

Propranolol hydrochloride (INDERAL® LA)	160 mg
Hydrochlorothiazide	50 mg

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE: Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance: namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure; intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis; erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia; LE-like reactions, psoriasiform rashes; dry eyes; male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache, xanthopsia.

Hematologic: Leukopenia; agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash; urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm; weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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Brief Summary of Prescribing Information.

Indications and Usage: Management of anxiety disorders or short-term relief of symptoms of anxiety or anxiety associated with depressive symptoms. Anxiety or tension associated with stress of everyday life usually does not require treatment with an anxiolytic.

Effectiveness in long-term use, i.e., more than 4 months, has not been assessed by systematic clinical studies. Reassess periodically usefulness of the drug for the individual patient.

Contraindications: Known sensitivity to benzodiazepines or acute narrow-angle glaucoma.

Warnings: Not recommended in primary depressive disorders or psychoses. As with all CNS-acting drugs, warn patients not to operate machinery or motor vehicles, and of diminished tolerance for alcohol and other CNS depressants.

Physical and Psychological Dependence: Withdrawal symptoms like those noted with barbiturates and alcohol have occurred following abrupt discontinuance of benzodiazepines (including convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Addiction-prone individuals, e.g. drug addicts and alcoholics, should be under careful surveillance when on benzodiazepines because of their predisposition to habituation and dependence. Withdrawal symptoms have also been reported following abrupt discontinuance of benzodiazepines taken continuously at therapeutic levels for several months.

Precautions: In depression accompanying anxiety, consider possibility for suicide.

For elderly or debilitated patients, initial daily dosage should not exceed 2mg to avoid oversedation. Terminate dosage gradually since abrupt withdrawal of any antianxiety agent may result in symptoms like those being treated: anxiety, agitation, irritability, tension, insomnia and occasional convulsions. Observe usual precautions with impaired renal or hepatic function. Where gastrointestinal or cardiovascular disorders coexist with anxiety, note that lorazepam has not been shown of significant benefit in treating gastrointestinal or cardiovascular component. Esophageal dilation occurred in rats treated with lorazepam for more than 1 year at 6mg/kg/day. No effect dose was 1.25mg/kg/day (about 6 times maximum human therapeutic dose of 10mg/day). Effect was reversible only when treatment was withdrawn within 2 months of first observation. Clinical significance is unknown; but use of lorazepam for prolonged periods and in geriatrics requires caution and frequent monitoring for symptoms of upper G.I. disease. Safety and effectiveness in children under 12 years have not been established.

ESSENTIAL LABORATORY TESTS: Some patients have developed leukopenia; some have had elevations of LDH. As with other benzodiazepines, periodic blood counts and liver function tests are recommended during long-term therapy.

CLINICALLY SIGNIFICANT DRUG INTERACTIONS: Benzodiazepines produce CNS depressant effects when administered with such medications as barbiturates or alcohol.

CARCINOGENESIS AND MUTAGENESIS: No evidence of carcinogenic potential emerged in rats during an 18-month study. No studies regarding mutagenesis have been performed.

PREGNANCY: Reproductive studies were performed in mice, rats, and 2 strains of rabbits. Occasional anomalies (reduction of tarsals, tibia, metatarsals, malrotated limbs, gastroschisis, malformed skull and microphthalmia) were seen in drug-treated rabbits without relationship to dosage. Although all these anomalies were not present in the concurrent control group, they have been reported to occur randomly in historical controls. At 40mg/kg and higher, there was evidence of fetal resorption and increased fetal loss in rabbits which was not seen at lower doses. Clinical significance of these findings is not known. However, increased risk of congenital malformations associated with use of minor tranquilizers (chlordiazepoxide, diazepam and meprobamate) during first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, use of lorazepam during this period should almost always be avoided. Possibility that a woman of child-bearing potential may be pregnant at institution of therapy should be considered. Advise patients if they become pregnant to communicate with their physician about desirability of discontinuing the drug. In humans, blood levels from umbilical cord blood indicate placental transfer of lorazepam and its glucuronide.

NURSING MOTHERS: It is not known if oral lorazepam is excreted in human milk like other benzodiazepines. As a general rule, nursing should not be undertaken while on a drug since many drugs are excreted in milk.

Adverse Reactions, if they occur, are usually observed at beginning of therapy and generally disappear on continued medication or on decreasing dose. In a sample of about 3,500 anxious patients, most frequent adverse reaction is sedation (15.9%), followed by dizziness (6.9%), weakness (4.2%) and unsteadiness (3.4%). Less frequent are disorientation, depression, nausea, change in appetite, headache, sleep disturbance, agitation, dermatological symptoms, eye function disturbance, various gastrointestinal symptoms and autonomic manifestations. Incidence of sedation and unsteadiness increased with age. Small decreases in blood pressure have been noted but are not clinically significant, probably being related to relief of anxiety.

Transient amnesia or memory impairment has been reported in association with the use of benzodiazepines.

Overdosage: In management of overdosage with any drug, bear in mind multiple agents may have been taken. Manifestations of overdosage include somnolence, confusion and coma. Induce vomiting and/or undertake gastric lavage followed by general supportive care, monitoring vital signs and close observation. Hypotension, though unlikely, usually may be controlled with Levarterenol Bitartrate Injection U.S.P. Usefulness of dialysis has not been determined.

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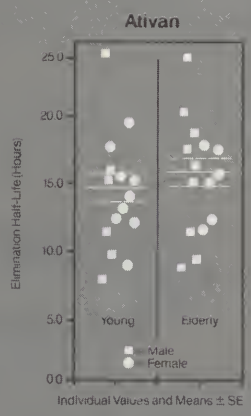
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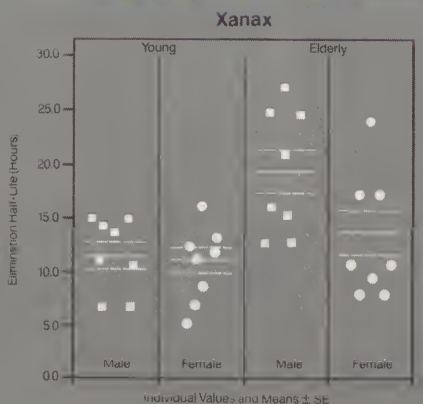
among leading benzodiazepines, has proof that its pharmacokinetics are not significantly altered by age.[1]

With Ativan, elimination half-life was very similar between young and elderly groups tested; differences did not approach statistical significance.[1]

Comparison of elimination half-lives in young and elderly subjects.



Ativan® (lorazepam)[2]
Ativan®, which is *conjugated* rather than oxidized, shows little difference in half-life (t ½) between young and elderly subjects.



Xanax® (alprazolam)[3] CIV
Xanax® requires *oxidative* (P450) metabolism; significant differences in half-life are shown between young and elderly male subjects; half-life is minimally influenced by age in women.

References:
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2. Greenblatt DJ, Allen MD, Locniskar A, et al: Lorazepam kinetics in the elderly. Clin Pharmacol Ther 26:103, 1979.
3. Greenblatt DJ, Divoll M, Abernethy DR, et al: Alprazolam kinetics in the elderly. Arch Gen Psychiatry 40:287, 1983.

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Laryngeal Nerve Injury During Thyroid Surgery

RICHARD CLOUSE, B.G.S. AND MICHAEL B. FLYNN, M.D., F.A.C.S.

Today, thyroid surgery presents a risk in both a legal and a practical sense. The most serious, yet often avoidable, complications during thyroid surgery are injuries involving the laryngeal nerves. Protecting these nerves from injury is of such importance that thyroid surgical procedures are structured to insure that the nerves remain intact. The surgeon must be knowledgeable in the anatomy of the thyroid area, and be aware of the devestation and morbidity that damage to the laryngeal nerves can cause. To decrease the risks, the surgeon must be aware of the different patterns of the laryngeal nerves, identify them and keep them in sight so as to prevent any inadvertant injury.

Thyroid surgery before the turn of the century was wrought with hazard. It was not until the early 1900's that Kocher was able to standardize and perfect the thyroid lobectomy procedure, and thus drop the mortality rate for thyroid surgery from nearly 50% in the late 1800's to 0.5% by 1917.[1] Today, with modern surgical techniques, endotracheal anesthesia, and antibiotic therapy, complications from thyroid surgery are rare and can usually be avoided by the surgeon who is well trained in the anatomy and physiology of the neck.

The most serious, yet often avoidable, complications during thyroid surgery are injuries involving the laryngeal nerves. Protecting these nerves from injury is of such importance that thyroid surgical procedures are structured to insure that the nerves remain intact.

The proximity of the laryngeal nerves to the thyroid arteries makes them particularly vulnerable to injury. Both the recurrent and superior laryngeal nerves are intimately associated with the inferior and superior thyroid arteries as they approach the thyroid gland.

Superior Laryngeal Nerve

The superior laryngeal nerve arises from the inferior (nodose) ganglion of the vagus, and passes inferiorly and medially to the carotid arteries. At the superior cornu of the hyoid bone, it divides into a sensory branch (internal branch) and a smaller motor branch (external branch). Accompanied by the superior thyroid artery, the internal branch passes beneath the thyrohyoid muscle, through the thyrohyoid membrane to enter the larynx, where it supplies sensory innervation to the mucosa of the larynx above the level of the true vocal cords. The external branch of the superior laryngeal nerve, with the superior thyroid vein and artery, runs below the sternothyroid muscle. The nerve passes beneath, and occasionally above, the vessels to innervate the cricothyroid muscle. Usually the vessels lie in the pretracheal fascia with the nerve outside.This configuration allows the surgeon to develop a plane of dissection between the pretrachial fascia and the true thyroid capsule, thus separating the vessels from the nerve[2] (fig. 1).

Injury to the internal and external branches of the superior laryngeal nerve occurs during ligation and division of the superior thyroid vessels. Being more cranial, the internal branch is less likely to be injured, while the external branch, which is more intimately related to the superior thyroid artery, runs a higher risk of being injured.[1,3]

Injury to the internal branch of the superior laryngeal nerve causes loss of sensation to the upper half of the larynx. Such an injury may impair function of the larynx, ie. choking or aspiration pneumonitis.[3]

Since the cricothyroid muscle functions to adduct the vocal cords during phonation, an injured external branch of the superior laryngeal nerve would leave the vocal cord flaccid. Unilateral nerve injury will result in an alteration in the voice that may or may not be transcient. This usually manifests itself as a decreased quality and strength of the voice, especially with singing or loud speech. Bilateral injury usually results in a hoarse, monotonous voice.[1,3]

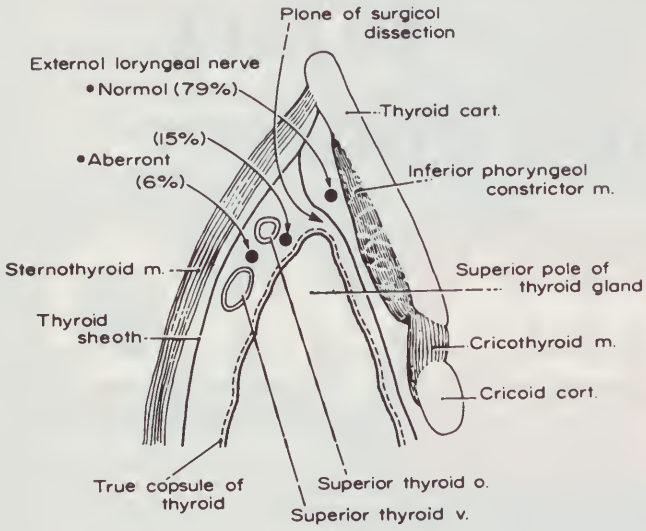


Fig. 1. Droulias et al. The Superior Laryngeal Nerve. The American Surgeon, Sept. 1976;42:635–638.

Recurrent Laryngeal Nerve

The recurrent laryngeal nerves are more complex than the superior laryngeal nerves. On the right, the nerve branches from the vagus as it passes over the subclavian artery. It loops posteriorly around the artery, ascends into the tracheoesophageal groove, passing posterior to the right lobe of the thyroid to enter the larynx. The nerve may also be nonrecurrent, arising from the vagus at the level of the cricoid cartilage passing directly into the larynx close to the inferior thyroid vessles. The left recurrent nerve arises from the vagus at the arch of the aorta, passes posteriorly to the arch, and ascends into the larynx, similar to the path of the right recurrent nerve. Both nerves cross the inferior thyroid artery or its branches near the middle third of the thyroid gland. The recurrent nerve may divide before it enters the larynx or be meshed with branches of the inferior thyroid artery as it passes to innervate the larynx[2,4,5] (fig. 2,3).

Recurrent laryngeal nerves are at particular risk of being injured as the inferior thyroid vessels are being ligated or as the ligament of Berry is being divided. The greatest danger of injury is mistaking the nerve for the inferior thyroid vessels. In this case, the nonrecurrent nerve is most vulnerable due to its course parallel to the inferior thyroid artery as it enters the larynx on the right.[1,5,6]

Injury to one recurrent nerve will cause a unilateral cord paralysis; injury to both recurrent nerves causes a bilateral cord paralysis. The paralysis will allow the cords to assume a parimedian position.

Unilateral cord paralysis will not cause acute breathing difficulties, although upon exertion or stress, stridor and insufficient ventilation to the lungs may result. Postoperative hoarseness accompanies a unilateral paralysis, but in time the opposing cord will cross the midline to compensate for the affected cord. This leaves the voice range reduced and it may crack with shouting or singing.[4]

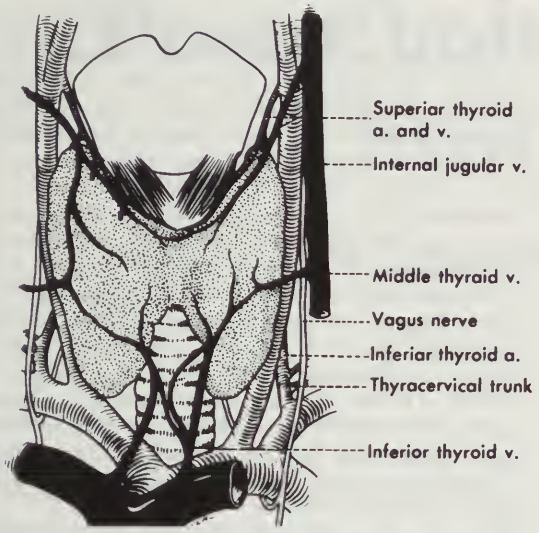
Bilateral cord paralysis will result in, at first, a weak breathy voice without significant respiratory distress. As the cords begin to fibrose, the voice gradually returns, however, the airway becomes increasingly narrowed. Stridor and decreased respiratory compensation, even at normal stress levels, may require a tracheostomy.

Prevention and Management of Laryngeal Nerve Injury

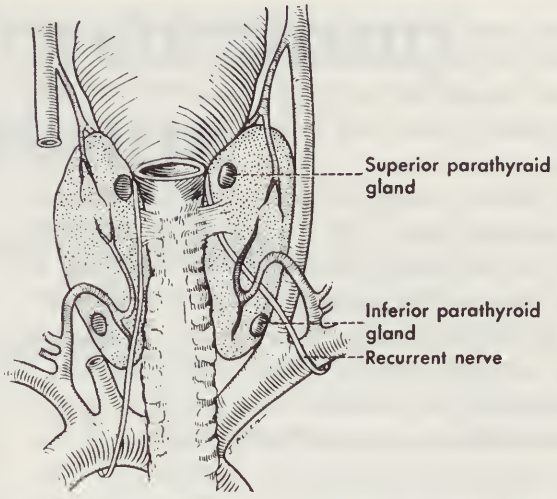
To prevent injury to the laryngeal nerves, the surgeon must isolate and trace them to where they enter the larynx. A study of intraoperative laryngeal nerve injury found that injury to the nerves occurred in 5-7% of cases when the nerves were not identified and in cases where they were identified and traced there was a 2.1% occurrence of injury.[7] Other studies have shown that a surgeon who is skilled in the anatomy of the neck can expect an 1% occurrence of recurrent nerve injury with an increased risk of 10% in secondary surgical procedures involving the area.[1,8]

To assure proper function of the laryngeal nerves the vocal cords must be evaluated both before and after surgery. The cords could be visualized with electrical stimulation before and after the thyroid lobectomy procedure prior to closure of the wound. This allows the surgeon to document nerve function before surgery, as well as to determine any intraoperative injury, so that proper corrective steps can be taken immediately.[9] In practice this extraordinary maneuver is rarely done. Instead the surgeon will rely upon the visual assurance that the nerve is intact.

During surgery, should injury to a nerve be detected, proper steps for repair should be taken immediately. The nerve should be reanastomosed if divided, and released from suture if caught in ligature. If the injury is



HOLLINSHEAD, WH: TEXTBOOK OF ANATOMY, 3rd ED. HARPER & ROW, HAGERSTOWN, MD, 1976, p774



HOLLINGSHEAD, WH: TEXTBOOK OF ANATOMY, 3rd ED. HARPER & ROW, HAGERSTOWN, MD, 1976, p775

Fig. 2 & 3 Hollinshead, *Textbook of Anatomy*, 3rd. ed., Harper & Row, Hagerstown, MD, 1974, pg. 775.

not detected until after the operative procedure, steps for correction should be taken to repair the nerve within the first eight to 10 post-operative days in order to decrease complications associated with wound reaction from the primary operative procedure.[4] Should there be any question about the integrity of the nerves, the neck should be reopened and the nerves evaluated.

Vocal cord paralysis due to edema and manipulation is common and should clear up within a few months. If paralysis persists for more than 12 months it should be considered permanent, and steps may need to be taken to alleviate airway obstruction. There are three methods to treat bilateral vocal cord paralysis: Tracheostomy, cord lateralization, and reinnervation.[6]

Tracheostomy will bypass the narrowed airway and allow for adequate ventilation. In many cases, the patient only needs increased airway during exertion; this allows the tracheostomy to be corked until needed. Tracheostomy affords an inexpensive, relatively simple approach which will not decrease residual voice.[9,11]

Vocal cord lateralization is accomplished by arytenoidectomy with or without cordectomy.[6] This procedure can be performed by using conventional or laser surgery. The cord is lateralized to allow a greater airway. A weak breathy voice results from an arytenoidectomy, and little or no voice results from a cordectomy.[12]

The Tucker method of reinnervation requires a nerve-muscle pedicle taken from the ansa hypoglossi and the anterior belly of the omohyoid muscle. The pedicle is brought to the posterior cricoarytenoid muscle and sutured into place. The procedure is designed to increase airway and preserve residual voice. This method, after careful patient screening, is reported to produce a success rate of 80% short term and 75% long term, during a minimum two-year followup, with no change in voice.[10]

Conclusion

Injury to the laryngeal nerves can be avoided by the surgeon who is knowledgable of the anatomy of the neck. The best method of avoiding permanent damage is to visualize the nerve and ligate all vessels only after the nerves have been identified and are well clear of the vessels. Damage to the nerves can be assessed by cord visualization upon electrical nerve stimulation before closure. If evidence of nerve damage if found, steps should be taken to evaluate this situation as soon as possible.

Transcient neuropraxia is common and lasts a short time. This type of injury should clear in six to 12 months; any longer, the injury should be considered permanent.

Nerve injury involving the superior laryngeal nerves may have some impact on the strength and endurance of the voice, but seldom causes a compromise in the airway. The recurrent laryngeal nerves, if unilaterally paralyzed will cause hoarseness, and if bilaterally paralyzed, will cause a decrease in the size of the airway, sometimes requiring a tracheostomy.

Surgical repair of transected laryngeal nerves never quite results in restoring full function to the vocal cords. Once such damage has occurred, repair will only lead to an increased airway with little or no voice improvement.[10]

Today, thyroid surgery presents a risk in both a legal and a practical sense. The surgeon must be knowledgeable in the anatomy of the thyroid area, and he must be aware of the devastation and morbidity that damage to the laryngeal nerve can cause. To decrease the risks, he must be aware of the different patterns of the laryngeal nerves, identify them and keep them in sight so as to prevent any inadvertent injury.

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From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky

Post-Cholecystectomy Symptoms

An Enigmatic Problem

T. JEFFERY WIEMAN, M.D.

Post-cholecystectomy symptoms are those complaints that persist or recur after cholecystectomy. These symptoms are produced by a number of illnesses, and their assessment is complicated by nonspecific diagnostic findings. However, in many cases, a careful approach to these complaints combined with the use of modern diagnostic techniques can determine the exact pathological process involved. The results of treatment are usually quite good.

A variety of disorders have been proposed as causes for post-cholecystectomy symptoms (Table 1). In most series, retained or recurrent bile duct stones are the most common identifiable cause.[1,2] Although bile duct stones are usually associated with jaundice, fever and liver function abnormalities, in 30% of cases no abberations of liver function are found.[2]

Iatrogenic problems are, at times, also implicated with post-cholecystectomy symptoms; [2] these include bile duct stricture, choledochoenteric fistula and chronic pancreatitis related to trauma to the sphincter of Oddi. Bile duct strictures may be related to the cholecystectomy or a secondary procedure. Fistulae and sphincter problems are usually encountered after common bile duct exploration. The cystic duct remnant has been proposed as a major source of post-cholecystectomy pain, and many secondary biliary tract operations have been performed to remove it. There is no evidence available to confirm that ductal remnants without stones produce clinical symptoms.[4] Because of the variability of biliary anatomy, this procedure has led to major injuries of the ductal system.

Pancreatitis is clearly associated with post-cholecystectomy pain, and a careful evaluation is warranted. Retained common bile duct stones, alcohol abuse, drugs, anatomic abnormalities and a plethora of other causes may be involved.[5] Manifestations are often nondiagnostic. The commonly held belief that serum or urinary amylase must be elevated in this illness has been reported to be untrue; Salt[5] noted that the amylase was elevated in only 70-80% of patients.

With increased use of endoscopic retrograde cholangiopancreatography (ERCP) in recent years, it has become evident that certain anatomic variations of the pancreas are associated with abdominal pain and post-cholecystectomy problems. The most widely recognized of these abnormalities is pancreas divisum, which is encountered in about 2% of ERCPs.[6] In this embryological abnormality, the dorsal and ventral pancreatic ducts have failed to fuse (Figure 1). Each duct has its own point of entry into the duodenum: dorsally the accessory duct of Santorini, ventrally the main pancreatic duct of Wirsung via the ampulla of Vater. The dorsal portion of the gland is thought to deteriorate as a result of stenosis at the site of the accessory sphincter. How commonly clinical symptoms are present in pancreas divisum is not yet known. A second abnormality implicated in post-cholecystectomy pain is the long common channel[7] between the common bile duct and the pancreatic duct. The clinical significance of this abberation is in doubt. Surgical or endoscopic intervention for pancreas divisum and common channel has yielded mixed results. In cases where the pancreatic duct is dilated, pain relief has been good. If the duct is of normal caliber, resection appears to be required.

Duodenal diverticulae are generally regarded as benign incidental findings on upper GI evaluations, but a relationship has been noted between the presence of pancreatitis, duodenal diverticulae and common bile duct stones.[8] This relationship is not entirely clear, but the presence of duodenal diverticulae should increase suspicion that bile duct stones are present.

Malignancy of the bile ducts or pancreas may produce abdominal symptoms and may be difficult to di-

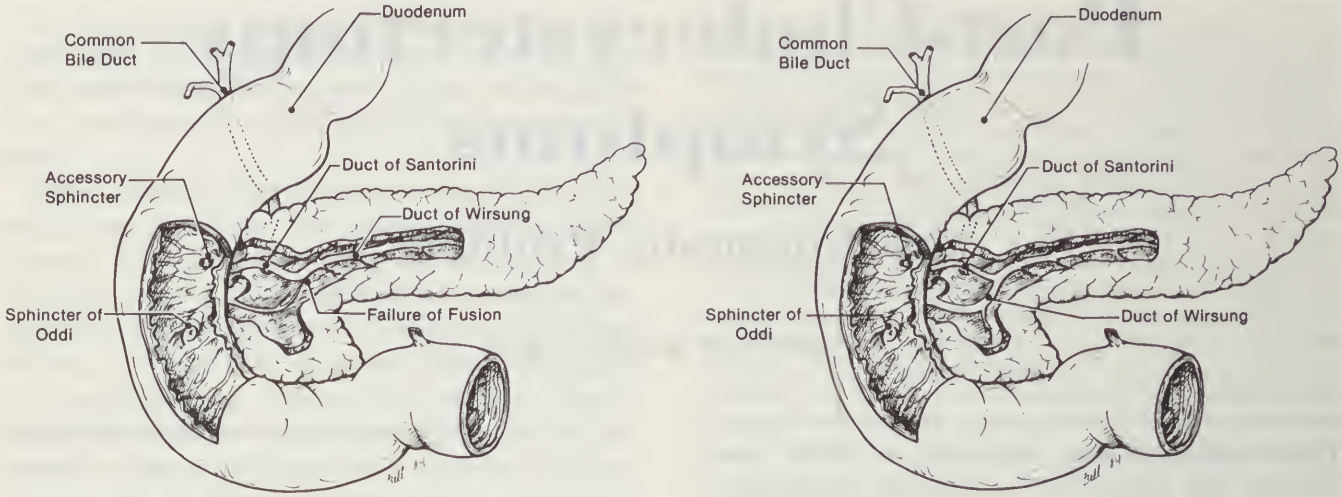


Fig. 1. (A) Pancreatic divisum. (B) Normal configuration.

agnose. Pain is caused either by direct invasion of the splanchnic nerves or pancreatitis. Tumors that cause post-cholecystectomy pain may be found anywhere in the pancreaticobiliary tract, and those in and about the papilla are most likely to be overlooked on standard gastrointestinal contrast studies because of their small size and soft texture (Figure 2).[9]

Gastric or duodenal ulcer disease produces similar biliary pain; indeed, biliary pathology and ulcer disease frequently coexist. In patients who have had previous gastric surgery, some deformities will be missed even with careful barium contrast studies.[10,11]

Stenosis of the papilla of Vater and spasm of the papilla (biliary dyskinesias) are controversial diagnoses; however, they are frequently mentioned as causes of post-cholecystectomy pain, especially in some European centers.[12,13] Some cases of stenosis have been proven anatomically and histologically,[6,15] but there are no well established means of assuring this diagnosis without surgical intervention and biopsy. Various procedures have been introduced;[14,15] each has its advocates and critics, but there is a need for more data about papillary disorders before widespread diagnosis and treatment can be justified.

A differential diagnosis of biliary and esophageal pain is made without difficulty in most patients.[16] However, when there is radiographic evidence of disease in both organs, therapy may prove to be a problem. Objective evidence of esophageal pathology should be provided by endoscopy and biopsy before treatment is started. Questions have been raised regarding the role of cholecystectomy in aggravating reflux, but in fact, there is no evidence that clinical gastroesophageal reflux is influenced by cholecystectomy.

Gastric motility disorders have been suggested as causes of post-cholecystectomy symptoms. Abnormal motility and medication-related symptoms are both disturbances of smooth muscle function rather than anatomic disorders. Until recently no reliable quantitative methods of studying gastrointestinal motility were available. Isotopic scanning has offered the opportunity to learn about the passage of foodstuffs through the stomach and intestine.[17] Some clinical impressions have been found to be in error.[18] To date, no carefully controlled study of gastrointestinal motility has been undertaken in post-cholecystectomy patients. Hobsley,[19] however, has a small unpublished series of these individuals, but he has failed to identify any significant "gastric dyskinesias."

The effects of numerous drugs acting on the gastrointestinal tract have been demonstrated isotopically.[20,21] Drugs given empirically in an attempt to treat post-cholecystectomy symptoms can actually aggravate the problem. Using isotopic methods, a rational basis for drug therapy may soon be available.

Psychosomatic illness is recognized by most clinicians as a significant source of upper abdominal pain.[22] Patients may present with vague biliary tract symptoms; however, after a thorough assessment, no objective evidence of the disease is documented. While some patients improve with symptomatic treatment, others persist in their complaints and migrate from one doctor to another until, finally, a cholecystectomy is recommended and performed. The pathologist usually reports only

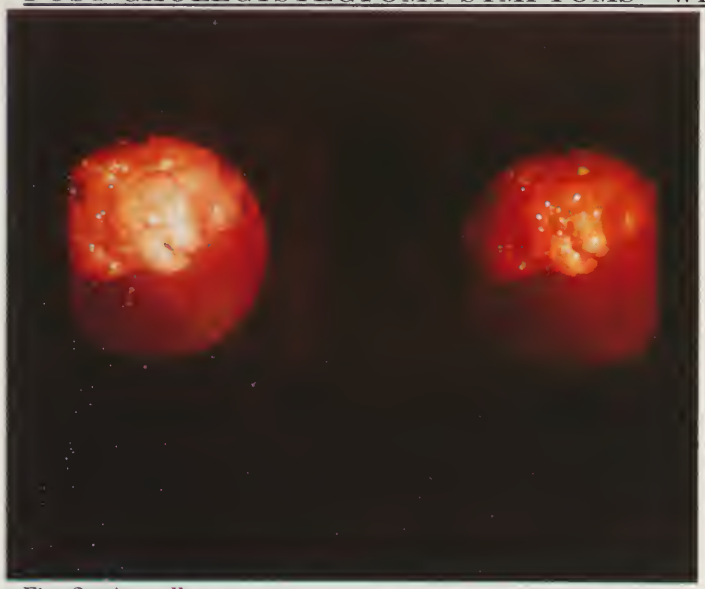


Fig. 2. Ampullary tumor.

minimal evidence of disease. The patient complains of a recurrence of the symptoms and is re-evaluated extensively to no avail, causing frustration for all parties. The outcome of this situation is not surprising. Operative findings usually confirm the preoperative assessment. Residual symptoms should be expected since the real pathological process was not identified before treatment was instituted. It is true that some patients with no objective findings have their symptoms relieved by cholecystectomy, but so do some patients who have only an abdominal exploration.

Diagnostic Methods

Frequently advocated procedures are listed in Table 2. Upper GI series and intravenous cholangiogram have been used to assess post-cholecystectomy pain. The intravenous cholangiogram, used for many years to detect stones in the common bile duct, has a highly variable degree of opacification. Only 50% of retained stones can be demonstrated in this manner.[23] More recently devised techniques provide much better images of the bile ducts. Therefore, the intravenous cholangiogram should no longer be used unless other techniques are unsuitable for some reason. The upper GI series has a limited efficacy in evaluation of post-cholecystectomy problems. A review of previous roentgenographic examinations will usually be sufficient unless a specific indication for repetition is present.

Diagnostic ultrasound can detect dilated biliary and pancreatic ductal systems and pseudocysts, as well as solid masses in the pancreas. In some studies, the accuracy of ultrasound assessment of the pancreas and biliary tract approaches that of CT scanning.[24,25] To some degree these techniques are interchangeable. Neither technique is particularly valuable in visualizing stones, especially in the absence of dilated ducts. However, the demonstration of the distal portion of the pancreas is better with CT than with ultrasound. Individual reliability of these techniques varies depending upon the expertise at any given institution.

Isotope studies should be used only in highly selected circumstances. Isotopic scanning of the biliary, pancreatic and gastrointestinal tracts has not proven useful. The liver-spleen scan and the HIDA scan are less specific and sensitive than either CT or ultrasound. The gastrointestinal motility scans are promising, but since no control data or significant series have been analyzed, it would be difficult to know how to interpret the results.

The Nardi Test[15] is designed to test for possible stenosis of the papilla of Vater. This test is performed by giving an intramuscular injection of morphine and prostigmine and is considered positive if there is a four-fold rise in serum amylase and pain is produced that mimics the individual's previous symptoms. Trials with the Nardi Test have yielded conflicting results. Substantial numbers of control patients and patients with normal ERCPs have been found to have positive Nardi Tests.[24] Thus, with its relatively low degree of sensitivity and specificity, it is of doubtful diagnostic value.

Biliary manometry, performed endoscopically, shows some promise in the diagnosis of papillary stenosis. The technique of Geenen et al[14] appears to be the most reliable; however, it is a complicated procedure and confirmatory data are needed to access its reproducibility.

Esophagogastroduodenoscopy (EGD) and ERCP are the most valuable tools for evaluating the patient with post-cholecystectomy problems.[1,2] EGD allows assessment of the esophagus and stomach for lesions that have not been identified on barium studies, and such findings are not rare.[10] ERCP permits a clear visual inspection of the papilla of Vater and the surrounding duodenum and is especially useful in identifying papillitis and tumors.[27] The ERCP allows a complete assessment of the biliary and ductal systems. Cannulation of both these systems is especially important in the post-cholecystectomy problem, as these patients have often had multiple operations on the bile ducts and pancreas. Retained stones, strictures and malignancies have been demonstrated in approximately 90% of the

TABLE 1.
CAUSES OF POST-CHOLECYSTECTOMY PROBLEMS

Retained or recurrent common bile duct stones
Iatrogenic injury
Pancreatitis
Malignancy of the bile ducts or pancreas
Gastric or duodenal ulcer disease
Stenosis of the papilla of Vater
Reflux esophagitis
Gastric motility disorders
Duodenal diverticulae
Drugs
Psychosomatic disorders
Original misdiagnosis

TABLE 2.
DIAGNOSTIC METHODS

Intravenous cholangiogram
Upper gastrointestinal series
CT scanning
Diagnostic ultrasonography
Isotopic scanning
HIDA scan
Static liver scan
Quantitative GI motility scans
Nardi test
Blood tests
Biliary manometry
Flexible upper GI endoscopy (EGD)
Endoscopic retrograde cholangiopancreatography (ERCP)

cases in which they occur. Pancreatitis can be diagnosed only by ERCP in some instances.[25,28]

Evaluation

The history and physical examination are of utmost importance in dealing with post-cholecystectomy problems. The family history may give valuable clues to such illnesses as hemoglobinopathies, porphyria or lipid disorders. Scars and wound tracts must be carefully inspected for signs of hernias, suture granulomas, abscesses or neuromas. All relevant imaging and laboratory data should be reviewed for completeness and quality. If the studies are satisfactory and the patient's symptoms are unchanged, there is no need to repeat the examinations.

If endoscopic facilities are available, the next step is to carry out a complete examination of the GI tract, biliary and pancreatic systems. Special attention should be paid to the distal esophagus, antrum and the pylorus as direct vision often identifies lesions that are not seen on x-ray. The papilla should be inspected closely, and all ducts should be well visualized in their entirety. Fluoroscopic examination is helpful to discover some small lesions of the distal common bile duct and ampulla and should be performing during ERCP immediately after decannulation.

If these procedures do not provide a specific diagnosis, the differential diagnosis must be expanded. A CT scan of the upper abdomen may be performed, if it has not been done previously. A period of observation is justified when the CT is normal. When a correctable lesion is identified, experience has shown a good result with intervention. If, however, no objective pathology is noted, it is unlikely that any more extensive evaluation will provide useful information.[22,29,30]

It is extremely important that close rapport between doctor and patient be maintained during this period. Disillusionment will frequently lead to a repetition of the same diagnostic cycle in another setting. Intensive counselling will bring relief to some of these patients.[29] Fear of cancer or other serious illness can thus be alleviated. If no changes have occurred in the patient's status after one to two months, it may be necessary to proceed with less well-established examinations such as motility studies or biliary manometry. The results of these studies may provide some guidance in providing symptomatic relief. A psychiatric interview may be recommended at this point.[22] Exploratory surgery has little place in this setting and should be discouraged. Endoscopic sphincterotomy has little more to recommend it.

A number of patients will continue to have symptoms despite all efforts. These individuals should be re-evaluated periodically for new manifestations.[30] It is unfortunate that not all patients can be relieved of their symptoms. However, the occurrence of a serious postoperative problem where no objectively identifiable disease was present before is even more unfortunate.

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From the Department of Surgery, University of Louisville School of Medicine, Louisville, Kentucky. Reprint requests to: T. Jeffrey Wieman, M.D., Department of Surgery, University of Louisville School of Medicine, Ambulatory Care Building, Louisville, KY 40292.

Percutaneous Nephrostolithotomy

An Alternative To Open Renal Surgery

KERRY L. SHORT, M.D., J. KENNETH ALLEN, M.D., W. COOPER BUSCHEMEYER, JR., M.D. AND LONNIE W. HOWERTON, M.D.

Percutaneous nephrostolithotomy (PNL) is the removal of selected renal or upper ureteral stones through a percutaneous nephrostomy tract. We report 25 patients who had PNL for removal of selected symptomatic renal or upper ureteral stones. In 96% of these patients, the calculus was removed. There were few complications, little postoperative pain and a short convalescent period associated with PNL. Percutaneous nephrostolithotomy is now the procedure of choice of many urologists for the removal of selected upper tract calculi.

Percutaneous nephrostolithotomy (PNL) is the removal of selected renal or upper ureteral stones through a percutaneous nephrostomy tract placed for that purpose. A recent proliferation of new urologic instruments designed primarily for percutaneous stone removal has made PNL an alternative to open surgical procedures in the removal of symptomatic renal and upper ureteral calculi. Several thousand patients in the United States have undergone PNL with most centers reporting a 95% success rate.[1-6] Using percutaneous procedures for renal stones and the rigid ureteroscope for lower ureteral stones, most urinary stones may now be removed endoscopically, regardless of size or location. These techniques decrease operative pain, shorten hospitalization, and allow the patient to return to work much sooner than with the standard pyelolithotomy or nephrolithotomy.

Calculi less than 1 cm in diameter may be removed without fragmentation through the rigid nephroscope using either a basket or a stone grasper. The larger calculi are fragmented with either ultrasonic or electrohydraulic lithotripsy and removed. These endourologic techniques may be extended to the antegrade placement of ureteral stents for obstruction, dilatation of ureteral strictures, and for visualization of filling defects in the ureter or renal pelvis.[7,8]

Patients

Twenty-five patients (ages 15 to 75 years) underwent procedures for removal of symptomatic renal or upper ureteral stones in 26 kidneys between May of 1984 and February of 1985 at the Methodist Hospital in Louisville, Kentucky. The location and size of the calculi are listed in Tables 1 and 2, respectively. The chemical composition of the calculi are listed in Table 3. There were 6 women and 19 men. Six patients were at high risk because of associated medical illnesses, and six patients had prior surgery on the involved kidney.

Methods

Routine preoperative laboratory studies were obtained. If infection was suspected, preoperative aminoglycoside antibiotics were given for 48 hours or until the results of urine cultures were obtained. Prophylactic antibiotics were given to all patients on the day of surgery.

The following steps for PNL are recommended: (1) Placement of a ureteral catheter on the involved side. This allows visualization and distention of the urinary system for placement of the percutaneous tract. (2) Placement of the nephrostomy tract. The appropriate calyx for access is selected and punctured with a needle. A guide wire is placed through the needle and down the ureter, if possible. If the access through the appropriate calyx is gained, then stone removal is greatly facilitated. The assistance of the radiologist is invaluable in this step. (3) Dilatation of the nephrostomy tract. A second "working" guide wire is inserted into the kid-



Fig. 1: Abdominal film shows a 1.5 cm left renal calculus (arrow).



Fig. 2: Intravenous pyelogram confirms the location of the calculus (arrow) in the renal pelvis.

ney's collecting system after the initial tract has been dilated to a #10 French size. The guide wire down the ureter is then reserved as a "safety" wire. Dilatation of the tract to a #24 French size is usually adequate for placement of a #24.5 French rigid nephroscope. If stone removal is to be delayed, a Council-tip nephrostomy catheter may be placed over the "working" guide wire. (4) Stone removal. Smaller stones may be removed with a basket or a grasper. Ultrasonic lithotripsy may be used to fragment larger stones. Visualization of inaccessible calyces may be obtained with the flexible nephroscope. A nephrostomy tube is placed after all apparent stones are removed. Nephrotomograms and a nephrostogram are obtained postoperatively to rule out residual fragments. Further endoscopic procedures may be performed through the same tract, if necessary. The nephrostomy tube is removed when the urine is clear and urinary drainage is documented, usually five to seven days postoperatively.

Case No. 1
(Figures 1 - 4)

An obese 72-year-old white male presented with a 1.5 cm opaque stone in the left renal pelvis. He had a previous left pyelolithotomy. A percutaneous nephrostomy tract was placed and dilated without difficulty. The stone was removed using ultrasonic lithotripsy, and the patient was discharged with a nephrostomy tube on the third postoperative day. The tube was removed one week later when tomograms showed no residual stones, and the nephrostogram demonstrated prompt drainage.

Case No. 2
(Figures 5 - 7)

A 44-year-old paraplegic man with an indwelling Foley catheter presented with a large bladder stone and a branched left renal calculus filling two lower pole calyces. The bladder stone was removed by electrohydraulic lithotripsy. After 72 hours of antibiotics to sterilize



Fig. 3: Radiograph shows a "safety" guide wire in the ureter and a nephrostomy tube in the renal pelvis over the "working" wire. The stone is marked by an arrow.



Fig. 4: Radiograph shows complete removal of the large pelvic stone following ultrasonic lithotripsy.

TABLE 1.

LOCATION OF UPPER URINARY CALCULI

Location	No. of Calculi
Renal pelvis	18
Upper pole calyx	2
Lower pole calyx	2
Upper ureter	2
Staghorn or branched	2

TABLE 2.

SIZE OF CALCULI REMOVED PERCUTANEOUSLY

Size	No. of Calculi
0.5 - 1.0 cm	4
1.0 - 1.5 cm	14
1.5 - 3.0 cm	6
Over 3.0 cm	2

TABLE 3.

CHEMICAL ANALYSIS OF CALCULI

Analysis	No. of Calculi
Calcium oxalate	16
Calcium phosphate	2
Uric acid	2
Struvite	3
Not done	3

TABLE 4.

COMPLICATIONS

Complication	No. of Pts.	Percentage
Bleeding causing delay of stone removal*	3	11.5
Significant urinary extravasation	1	3.8
Inability to place nephrostomy tube	1	3.8
Residual fragments following lithotripsy	4	15.5

*No transfusions were required



Fig. 5: Calculi in the two lower pole calyces (large arrow) and bladder calculus (small arrow).

the urine, a percutaneous nephrostomy tract was placed into the lowest calyx, and the stones were removed. Two days later, the stones in the mid lower pole calyx were removed with ultrasonic lithotripsy through separate percutaneous tract. He was discharged on the sixth postoperative day after nephrotomograms showed no residual calculi. The nephrostomy tubes were removed one week later.

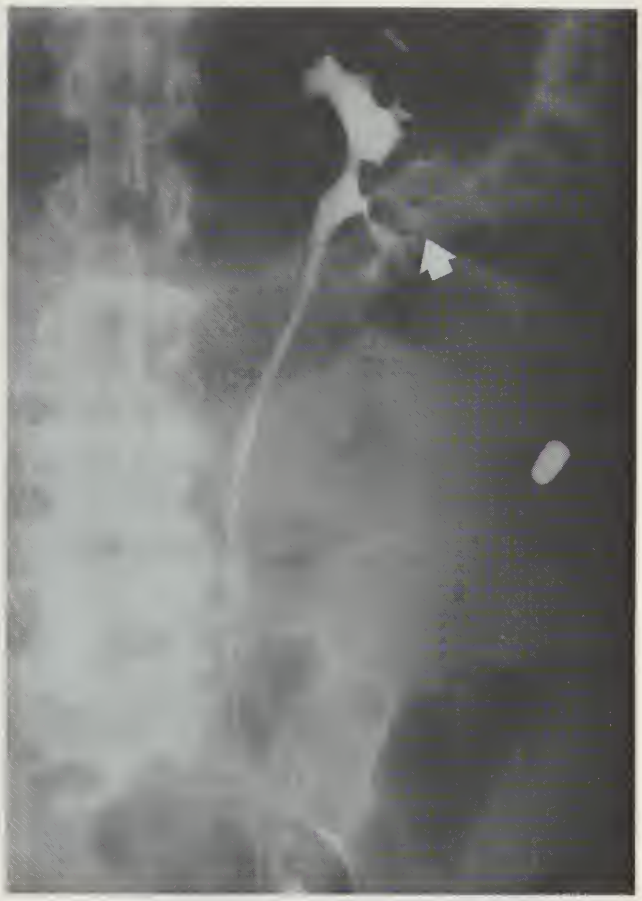


Fig. 6: Retrograde pyelogram clearly demonstrates the location of the renal calculi (arrow). A bullet fragment is present in the right middle quadrant.

Case No. 3
(Figures 8 - 10)

A 55-year-old white male presented in urosepsis secondary to a large obstructing upper right ureteral stone. An emergency percutaneous nephrostomy was placed. The nephrostomy tract was dilated after resolution of his sepsis. The stone was removed using ultrasonic lithotripsy. He was discharged on the third postoperative day, and the nephrostomy tube was removed one week later.

Results

Percutaneous access and removal of the calculus was successful in 25 of the 26 attempts (96%). In one patient, a percutaneous nephrostomy tract could not be placed in the appropriate calyx initially, and the surgeon proceeded with pyelolithotomy without another percutaneous attempt.



Fig. 7: Following removal of the renal calculi through two separate percutaneous tracts, this nephrostogram demonstrates good urinary drainage and no residual calculi.



Fig. 8: A large calculus impacted in the upper right ureter causing hydronephrosis (arrow).

Calculi were removed in a one-step method (percutaneous nephrostomy followed by dilation and immediate stone removal) in 10 cases (38.5%). A two-step procedure was used in 16 cases (61.5%). Most of these cases were performed early in our series. Currently, we remove most renal pelvic stones in one procedure. Additional procedures were required in six cases (23%) to remove residual fragments following ultrasonic lithotripsy.

The average postoperative stay was 5.5 days in the first 13 cases and 5.0 days in the second 13 cases. We anticipate this number will decrease as more patients have the calculi removed in the one-step procedure.

Complications were minimal and are listed in Table 4. There was no mortality. Minor bleeding that necessitated delaying the calculus removal after tract dilatation occurred in three patients. The most disturbing complication was small asymptomatic residual fragments in four patients (15.4%). Two of these patients refused additional procedures to remove the residual fragments, and the residual calculi could not be visualized endoscopically in the other two patients.

Discussion

Percutaneous nephrostomy tubes have been used routinely to decompress obstructed kidneys since first reported by Goodwin in 1951.[9] It was not until 1976 that Fernstein and Johansson established a percutaneous tract specifically for stone removal.[10] Since the late 1970s, more than 1,000 patients have successfully had renal calculi removed by this technique.[1-6] Because of the rapid technologic advance in the development of instruments designed to remove renal stones endoscopically, PNL has become the procedure of choice for removal of symptomatic accessible renal stones.[7]

The advantages of PNL over open pyelolithotomy or nephrolithotomy are many. There is less postoperative pain, shorter hospitalization in most cases, and a much shorter convalescent period. Patients are usually able to return to work within one week after the procedure.

Most small stones (less than 2 cm) can be removed with one procedure; however, larger stones or those in



Fig. 9: A ureteral catheter could not be passed by the ureteral calculus (arrow). A percutaneous tube was then placed.



Fig. 10: A nephrostogram following PNL of the ureteral calculus demonstrates good urinary drainage.

inaccessible locations often require multiple procedures. The patient must be informed that open surgical removal of some stones may be required in a small percentage of cases. Large, branched renal calculi or embedded upper ureteral stones usually require open surgical techniques.[7]

Major early complications are infrequent, but the possibility of nephrectomy for uncontrolled hemorrhage or open surgical correction of collecting system perforation should be discussed with each patient. Major complications such as arteriovenous fistulae, water intoxication from fluid absorption, sepsis and pulmonary embolus are rare.[3,5,7] Minor complications such as bleeding causing difficulties in visualization of the stone or minor urinary extravasation can usually be treated by placing a nephrostomy tube and attempting to remove the stone two to three days later.

Late sequelae of PNL are very uncommon. Marberger and associates[11] reported no increase in hypertension, no chronic ateriovenous fistulae formation, and no decrease in renal function. Using radionuclide scanning, renal function remains stable or improves following PNL.[12] Residual calculi following ultrasonic lithotripsy in the treatment of renal calculi has been reported to be low,[5] but recurrences following ultrasonic lithotripsy for bladder stones is higher.[13] As more data become available on PNL, the recurrence rates will be of interest.

Our success rate of 96% for calculi removal in 25 patients compared favorably with the literature.[1-7] Our complication rate also compared favorably with most series.[3-5] Patient selection and cooperation between the urologist and radiologist were contributing factors to the high success rate and the low complication rate.

The development of extracorporeal shock-wave lithotripsy (ESWL) has added another dimension to urinary stone management. ESWL will not replace percutaneous procedures but will complement them. In large inaccessible stones, both PNL and ESWL may be required. The purchase cost of $1,800,000 and the annual maintenance cost of $100,000 per year will make ESWL too expensive for most hospitals.[14] The use of PNL, ESWL and rigid ureteroscopy for ureteral stone removal will make open urologic surgery for stone removal uncommon.

Addendum

Twenty additional patients have undergone PNL since February, 1985. Calculi were removed in all 20 but residual fragments following utlrasonic lithotripsy or asymptomatic calyceal calculi following the procedure were documented in three additional patients. One patient developed gram negative septicemia and was the only patient of the series who required a transfusion.

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From W. Cooper Buschemeyer, Jr., P.S.C., Suite 108, 801 Barret Ave., Louisville, KY 40204.

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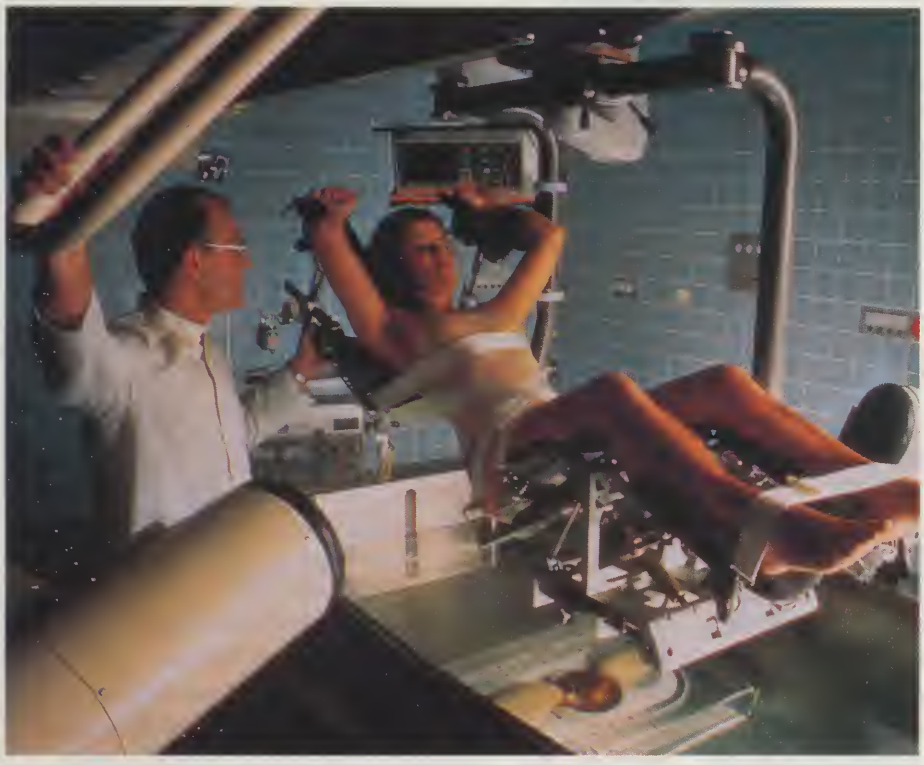


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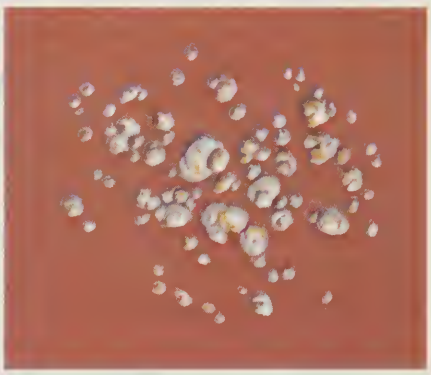
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Sorry, There's No DRG for That!

In one issue last December of the publication "People's Medical (PMS) Newsletter" an interesting article appeared. It gave hype to a booklet published by the U.C.L.A. Department of Medicine, titled "How to Talk to Your Doctor." The booklet included descriptions of how older patients can best choose a doctor, describe their symptoms and get their questions answered. Among the tips provided are:

- Prepare an agenda of what you want to accomplish during the appointment.
- Limit yourself to a maximum of two problems per visit.
- Be specific when describing your symptoms.
- Ask questions until you're sure you understand.

Most of the advice offered by the booklet is one to improve communication between patient and physician. The ideas espoused are good for the most part, however some doctors are repelled when the patient produces a shopping list of symptoms.

Physicians are usually quite skilled in getting the history, but so often the patient is unskilled in giving the answers. At times the answers are monosyllabic with scant information. Or else they are so verbose ("I reached in my pocket and took out a quarter and put it in the telephone slot to call my daughter in Deluth.") that we are lost as to what the question was and just why we asked it.

One of the reasons for poor patient-doctor communication is lack of time. An old adage of medicine used to be "Let the patient talk long enough and they will make the diagnosis." That may not apply as well to this day and age, but a lot can be said for it.

Many patients shy away from the written words of their history. They have a look of apprehension as they see their spoken words set in ink. Frequently, the most helpful information I get is when I close the chart, cap the pen, and lean back and prop up my feet and continue. This makes for a rather long ventilation, but not much documentation on the chart.

In these days of DRG's, limited time, falling gross income, increased overhead, and no remuneration for cognitive skills, the first fatality may be doctor-patient communication.

Nothing very earthy today. Just some nuts and bolts on the changing face of medicine. Perhaps there is nothing we can do to arrest the change, but that knowledge can forearm us to use what time we spend with the patient to be the most beneficial.

Milton F. Miller, M.D.

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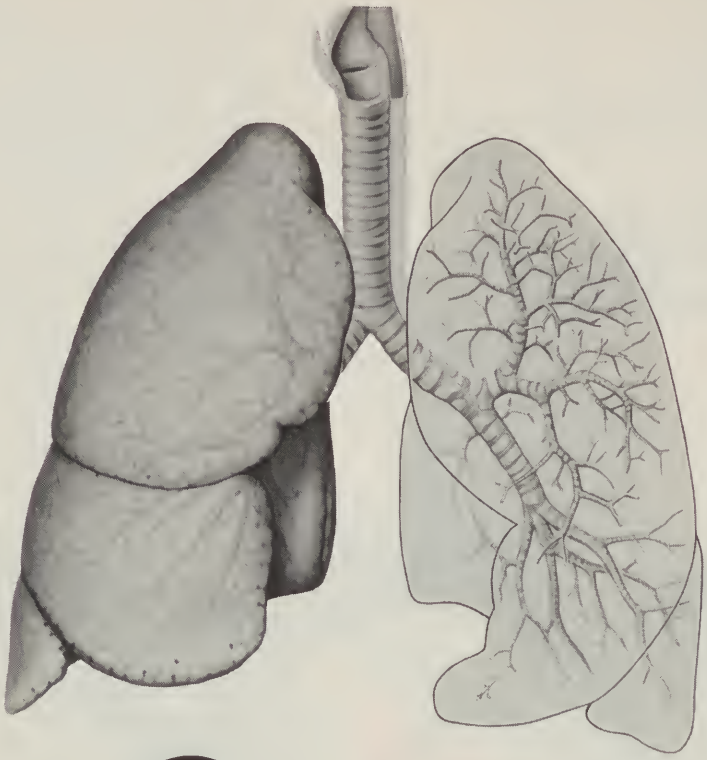
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J-5491 June 1985

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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — *Pregnancy Category B* — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0617B2R]

Note Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46285

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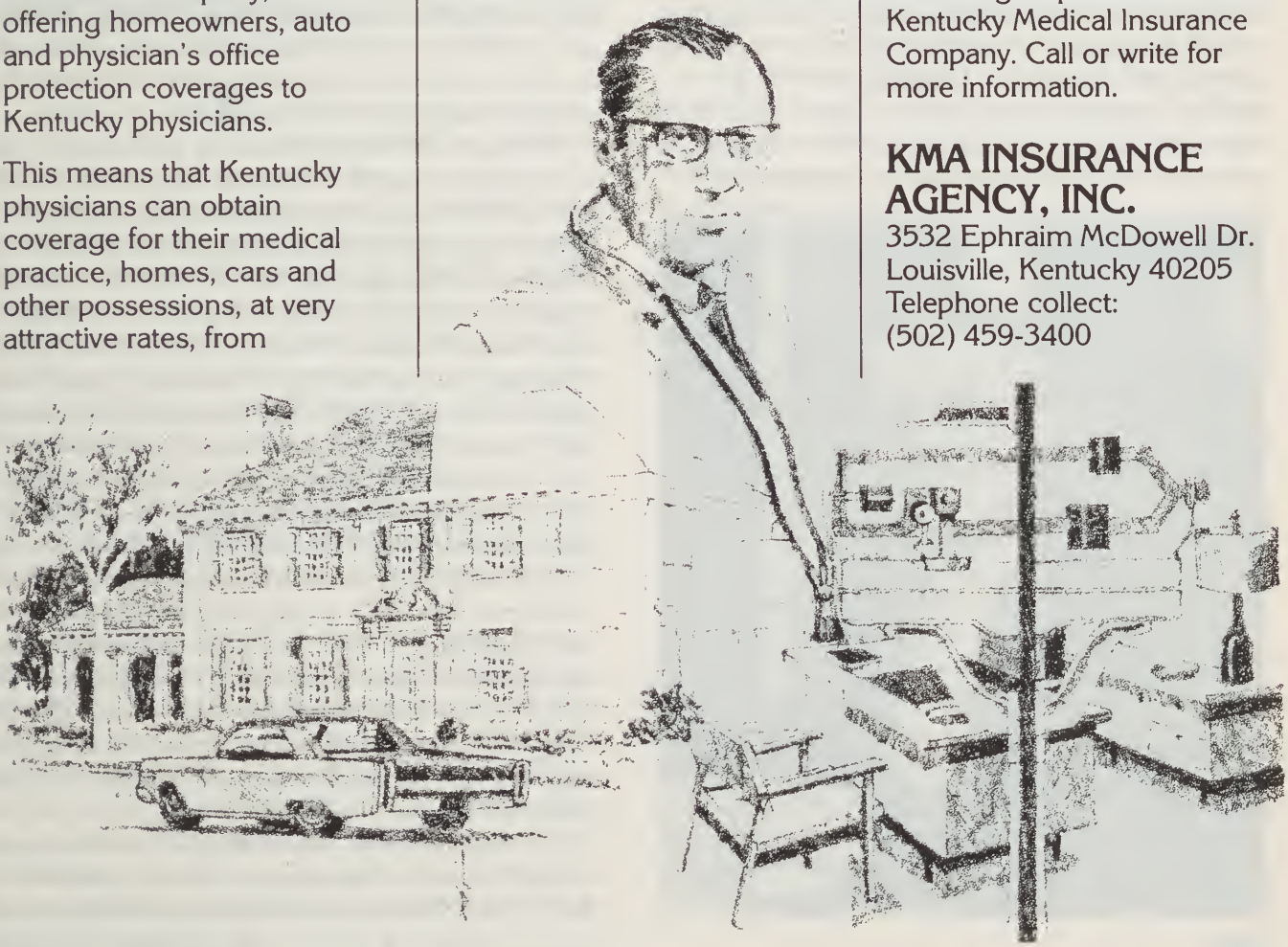
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Wally O. Montgomery, M.D. KMA President

As a surgeon from Paducah, Kentucky, Wally O. Montgomery, M.D., has been setting goals throughout his life and working successfully to achieve them. Growing up in Midway, Kentucky, Doctor Montgomery decided as a child to become a physician. He graduated from Midway High School as valedictorian and from Georgetown College, summa cum laude. Once in medical school he worked to become a surgeon. Doctor Montgomery is modest though about his achievements. "I had the measles when I was about four years old, and Doctor Alexander of Lexington came to see me. That was the day I decided to be a doctor. I discovered later that becoming a doctor is as much a matter of persistence and determination as it is intelligence."



Doctor Montgomery is still setting goals. As 1985–86 KMA President, there are a number of issues he intends to promote. "I want to see the Resident/Physician Section, the Hospital Medical Staff Section and the Medical Student Section become active, viable parts of KMA. Many of our membership problems come from people involved in their own sub-specialty group to the exclusion of KMA activities, so they fail to see the need for an umbrella organization. That brings up another goal which is to travel throughout the State, especially to district trustee meetings, to magnify the need for an umbrella organization such as KMA."

"We represent all physicians, not only primary care or independent practitioners, but those involved with PPO's, HMO's, surgical outpatient centers, etc. Physicians have often been reluctant to change, and our stereotype of the physician as one who has a private practice, a hospital practice and works independently is a thing of the past. Unless we involve other physicians, encouraging them to participate with us in making decisions and identifying common problems, we are really missing the boat." Identification of shared problems is the selling point in uniting diverse medical practices. Doctor Montgomery explains, "All physicians potentially treat the same sick patients. We all have the same problems with insurance reimbursement of whatever type for a given treatment. We share the same problems related to legislative matters and rules and regulations imposed on us by the legislature. We have the same problem trying to provide care for the indigent and resolving the issue of payment levels. So there are more things that bind us together as physicians than separate us."

The evolving trends toward for-profit medicine and competition are changing physician practice patterns daily. Doctor Montgomery's attitude toward this is con-

structively optimistic. "I think there are many established physicians who are hoping that their mode of practice holds out until they reach retirement age. This is not a reasonable way of reacting to change. We must be cognizant of what is going on around us, that things will never be as they once were. We can either adapt ourselves to live in today's world or refuse to recognize change and face an uncertain future."

A major task Doctor Montgomery faces in his term as KMA President is the 1986 General Assembly. Having served as KEMPAC Chairman and a member of both the state and national Legislative Committees, Doctor Montgomery will be able to rely on his experience in dealing with the legislature. But he sees more changes occurring in the way legislators respond to physicians. "We have been extremely fortunate in getting bills passed. Being Keyman for the congressman from our district in Washington and Keyman for a state senator for many years, the one thing I am aware of is that most physicians will not take the time to get involved to the extent that they can intelligently discuss problems with their legislators. Then they find themselves reacting, which is a weak position to be in. I would like to see us develop a more positive outlook as proponents rather than opponents.

I hesitate to say this, but I believe that physicians have lost some of their traditional influence with legislators by not getting involved soon enough in the issues and not appreciating the problems and headaches legislators have in trying to do their jobs in representing their constituents. We can no longer blithely say that because we are doctors and understand how to practice medicine, we should expect the legislators to agree with us. There is no place for arrogance in the legislative process. This is not a criticism of the way things have been handled in the past. It is hard to believe that more physicians don't belong to KEMPAC. I always wear my AMPAC/KEMPAC sustaining membership button and have been proud of the job KEMPAC has done throughout the years. I cannot comprehend physicians not becoming members."

The issue of medical malpractice will be on the legislative agenda in 1986. Annual increases in premiums of more than 50% are not uncommon. These costs have a definite effect on the way medicine is practiced. Some of the steps other states have taken to remedy the situation are not possible in Kentucky because of the state constitution which prohibits placing a cap on the amount of damages a complainant may seek. Doctor Montgomery explains that other solutions to ease the problem do



exist. "One of the things to consider is pretrial screening panels where a group of doctors and lawyers meet to decide if there is really merit in the case. Discovery of collateral source is another area which may relieve the burden somewhat by stopping the double-dipping of payments to patients who receive payment from insurance companies and additional payment from settlement in a malpractice suit. There is also a recommendation that I support which is continuing medical education. Almost all professional groups require those who wish to continue to have a license to continue their education. I have a lot of trouble going to the legislators, asking them for malpractice relief when we are sometimes unwilling to enforce continued education for ourselves."

Doctor Montgomery continues, "A survey conducted by the New York State College of Surgeons concluded that if a physician spent more time on CME and more time developing rapport with patients these two efforts would do more than everything else combined to give relief to the malpractice crisis."

While working to reach the major goals in his life, Doctor Montgomery has still pursued other activities. He was a guest speaker during the 1985 Emergency Medical Care Seminar and spoke on "Decontamination of Nuclear Accident Victims." Doctor Montgomery became interested in the subject from his experience as

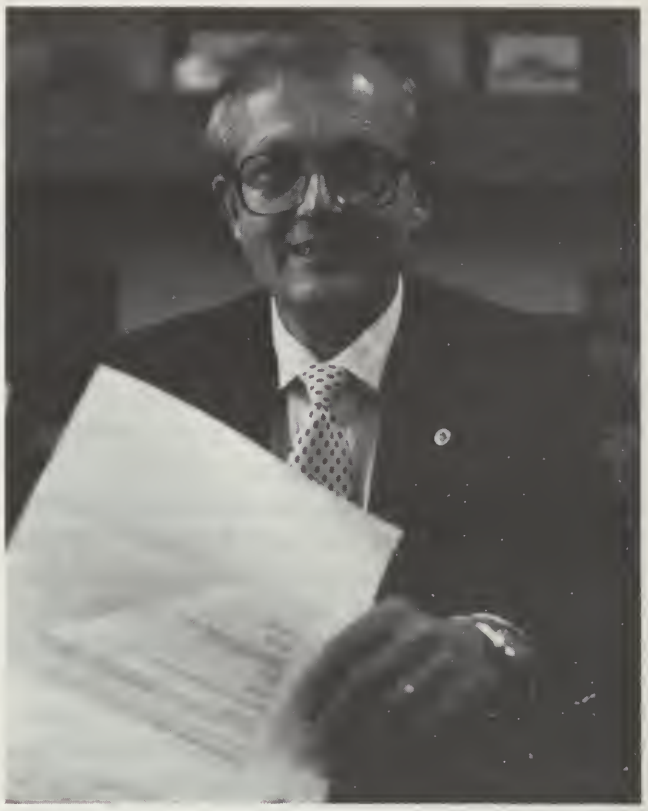
a Colonel and past Commander in the U.S. Army Reserve, 807th Combat Support Hospital or M.A.S.H. unit. As an Army medical unit his hospital was involved with possible nuclear decontamination and treatment of nuclear related injuries on a regional basis because of the Martin-Marietta Uranium Enrichment Plant 15 miles from Paducah.

Besides being a practicing surgeon, on the staff of Western Baptist and Lourdes Hospitals, KMA President and involved in the Army Reserve, Doctor Montgomery is an avid flower gardener. He personally maintains the family's 2-1/2 acres and says he plans to plant about 1500 jonquil and 800 tulip bulbs this fall.

Doctor Montgomery met his wife, Geraldine, when he was a lab instructor at Georgetown College and she was a student. Mrs. Montgomery is now working on an MBA degree at Murray State University after being a teacher for a number of years. She too maintains an active schedule, having been involved in the KMA Auxiliary as past state President. Mrs. Montgomery also owns a deli-bakery, serves on the Paducah Transit Board and is active in church activities, along with Doctor Montgomery who is a deacon at Immanuel Baptist Church.

The Montgomery's have three children. Their oldest, Kathy, is working on her Master's Degree in interior design at the University of Kentucky. Evelyn is starting medical school this fall at the University of Louisville, and David, their youngest, is attending Centre College where he received a scholarship to pursue premedical studies.

Doctor Montgomery carries a small pocketknife with him. It is more accurately called a doctor's knife and collecting these is another favorite pastime of his. "Doctor's knives are blunt on the end to be able to crush pills," he explains. "I've got about 1600 pocketknives that I've collected over the years. I find them at flea markets and knife shows. Geraldine bought an old sewing machine once that hadn't been used for years.



I asked her why she bought the junk, then opened one of the drawers and found a pocketknife made in Germany more than 100 years ago."

Doctor Montgomery's outlook on the future of medicine remains positive. "New developments in the care of patients, new drugs and the longevity of the general population are all remarkable. As a result, the need for physicians will increase. I have no regrets at all about my decision to practice medicine. The only negative aspect is not always being able to spend enough time at home with the children. But I love what I do and the time and effort are worth knowing that you are using the skills that so many people helped you to achieve."

Donna M. Young

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Contraindications: Hypersensitivity to the drug; psychosis, acute or chronic, regardless of etiology.

Precautions: *Because the target symptoms are of unknown etiology, careful diagnosis should be attempted before prescribing HYDERGINE (ergoloid mesylates) preparations.*

Adverse Reactions: Serious side effects have not been found. Some transient nausea and gastric disturbances have been reported, and sublingual irritation with the sublingual tablets.

Dosage and Administration: 1 mg three times daily. Alleviation of symptoms is usually gradual and results may not be observed for 3-4 weeks.

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Before prescribing, see package circular for full product information. HYD-1085-13

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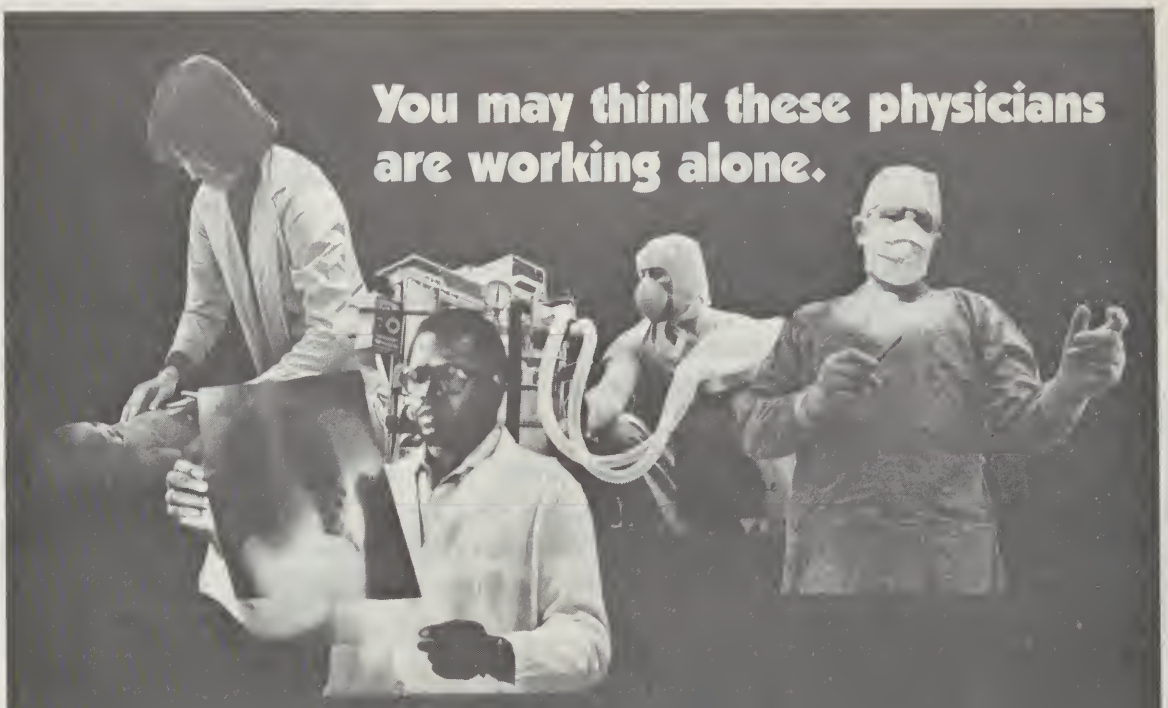
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Before prescribing, see complete prescribing information in SK&F CO. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

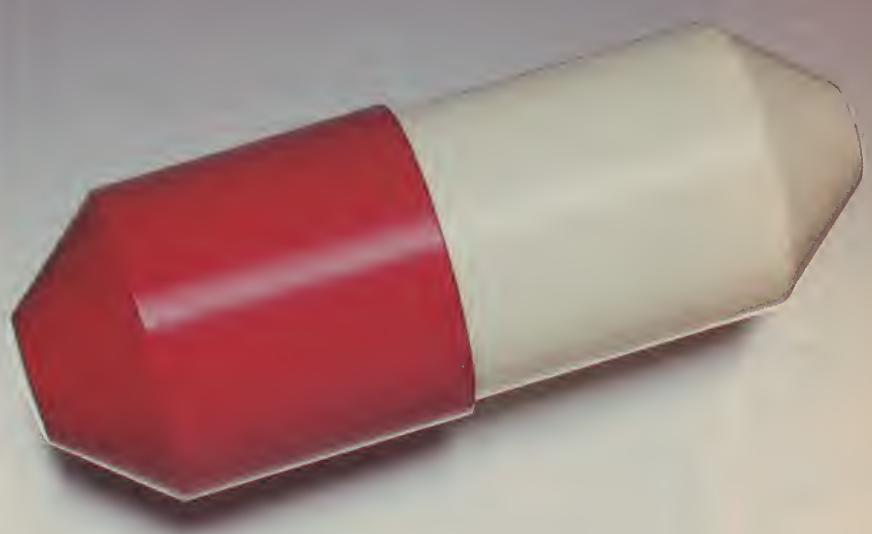
Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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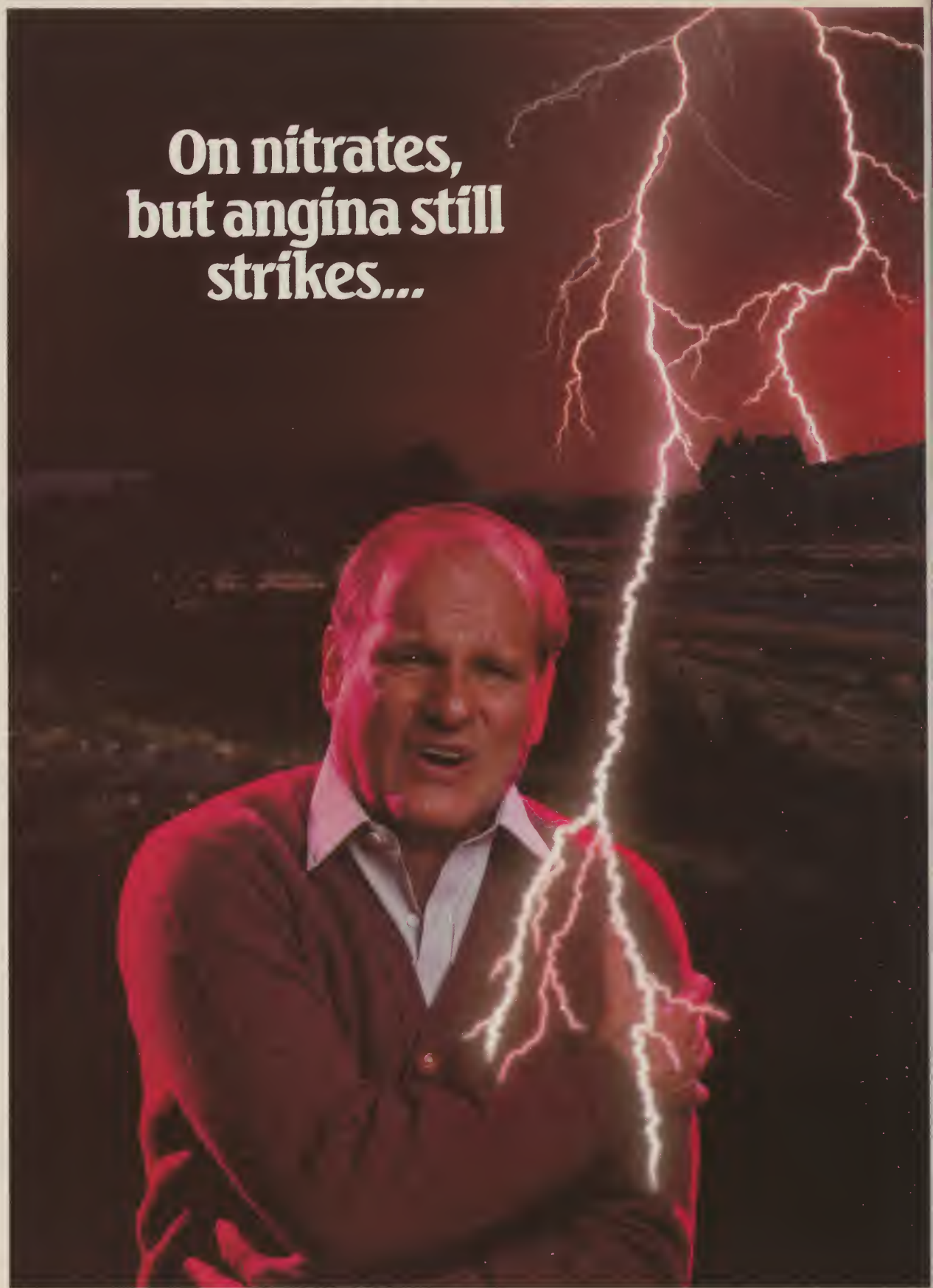


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First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

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Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin... for more comprehensive antianginal protection without side effects which may cramp an active life style.



ISOPTIN. Added antianginal protection without beta-blocker side effects.

Please see brief summary on following page.

ISOPTIN®
(verapamil HCl/Knoll)
80 mg and 120 mg scored, film-coated tablets

Contraindications: Severe left ventricular dysfunction (see *Warnings),* hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.)* Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions.*) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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Digest of Proceedings KMA Board of Trustees

The fourth regular session of the Board of Trustees was held on August 7 and 8, 1985. Customary reports were given by the President, Secretary-Treasurer, and Senior Delegate to the AMA. Also appearing before the Board for presentations were the Presidents of KPRO and the Board of Medical Licensure.

The Commissioner for Health Services reported that plans are underway to seek funds for a program to help finance health care for the medically indigent (those above Medicaid income levels but below poverty guidelines) through county health departments. Health departments would contract with physicians, clinics, etc, to provide the service if it is not otherwise available. This preliminary presentation will be reviewed in more detail by KMA as the proposal is reduced to writing and made available to the Board.

The Chairman reported that Kentucky Medical Management & Computer Operations had been merged with its sister organization, Physicians Administrative Corporation of Ohio (PACO) on June 1, 1985. Updates were given on changes in the Kentucky Medicaid Program, the Medicare Program, and on the Kentucky Physicians Care Hotline/Referral System.

The Board members approved recommendations in the CME accreditation process made by the CME Committee to meet the requirements of the ACCME; appointed Timothy Costich, M.D., Lexington, to a Steering Committee of the Kentucky State Seat Belt Coalition; and reappointed all current *Journal* Editors to another two-year term.

The Board members then directed their attention to all committee reports being presented to the House of Delegates. Final Plans for the 1985 Annual Meeting were discussed, including the First Annual McDowell/Crawford Ball to be held on September 29, 1985.

The next meeting was scheduled for Sunday, September 29, at the Galt House in Louisville.

Members in the News

Harold E. Kleinert, M.D., to Receive the Maimonides Award from the State of Israel

Harold Kleinert, M.D., noted handsurgeon and Chairman of the Louisville Institute for Hand and Microsurgery has been chosen to receive the Maimonides Award by the Government of Israel.

The award is named for Moses Maimonides (1135-1204) the greatest Hebrew philosopher of the Middle Ages and a distinguished physician.

The Maimonides Award is being presented to Dr. Kleinert for his notable leadership and outstanding participation in the Health Professions over the past 35 years, as well as service to the State of Israel. Over the years Dr. Kleinert has visited Israel, worked there professionally, and has had Israeli physicians train with him.

The Tribute Dinner is to be held on Sunday, October 13, 1985 at 6:30 p.m. at the Sixth Avenue Restaurant. It is being co-sponsored by the Jewish Hospital where Dr. Kleinert has been on staff for more than 30 years and by the Louisville Committee for the State of Israel Bonds.

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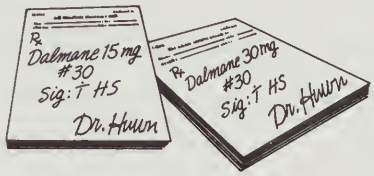
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Trends in Medicine

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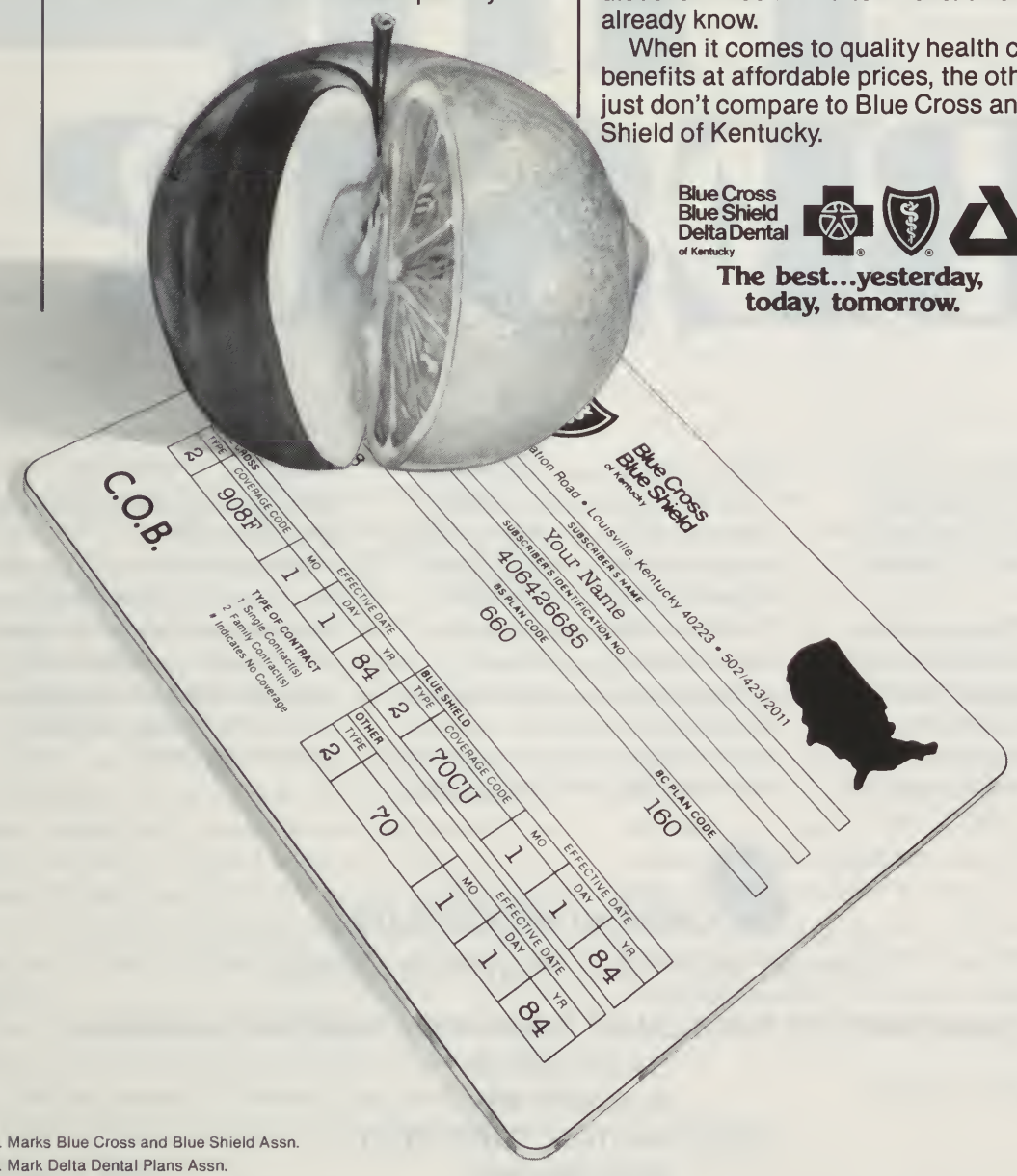
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PRESIDENT'S PAGE

Kentucky General Assembly—1986



Every two years our elected Representatives and Senators meet in Frankfort for the Kentucky General Assembly. During the Session, your State Legislative Committee under the experienced leadership of Carl Cooper, M.D., makes every effort to represent Kentucky physicians. Our legislative assistants, Bill Doll and Don Chasteen, work endless hours on a multitude of issues talking to legislators and working with KMA key men, specialty groups and leadership on specific issues. On a weekly basis, the Quick Action Committee of the Board of Trustees will be in Frankfort to plan and react to the quagmire of bills which affect the health care of Kentuckians and the ability of the physicians to practice without being shackled to needless rules and regulations.

In 1984, Doctor Cooper and his helpers were very busy in following 131 bills through the legislative process. Without wanting to be more negative than positive, we found it necessary to oppose 40 bills of which 39 were defeated. Of the four bills KMA supported three were enacted. We were tremendously successful, which is a tribute to our many legislative friends and their sound judgment.

As we review 1984 and look forward to 1986 many recurring issues will reappear. Many health care providers will be striving to entrench their positions and seek direct payment for services from insurance companies as well as Medicaid. As physicians have been aware for generations, it would be impossible to practice medicine without some of our allies. However, there is much concern with the independent practice of medicine by those not specifically trained and licensed to do so. Also, we will find those who believe that physicians should have representation on licensure and various other boards of allied health providers. Every effort will be made by opponents to limit physicians' incomes with no other group singled out. Many of our concerns with the 1986 legislative session were presented as resolutions at the 1985 House of Delegates during the recent annual meeting and will be at the forefront of the KMA legislative effort. You can be assured that Doctor Cooper and his committee will do their best to represent your views.

The subject of medical politics cannot be mentioned without considering KEMPAC and its value to Kentucky physicians in supporting legislators who agree with our views regarding legislation. KEMPAC has a tremendous record of supporting legislative winners over the past several years. When we contribute to a candidate it provides us an opportunity to present our views when legislative issues are introduced. Sadly, most physicians in this state have not given even $100 per year to become sustaining members of our PAC. Next month every physician in the state will receive a bill for 1986 KMA dues. In that letter you will also find an invitation to joing KEMPAC. ***Those who are really concerned with legislation*** will send their checks for KMA, AMA and KEMPAC dues!

Even with divergent views and rating of priorities by Kentucky physicians, KMA leadership will give their undivided attention in 1986 to assure as much as possible a successful legislative session.

Wally O. Montgomery, M.D.
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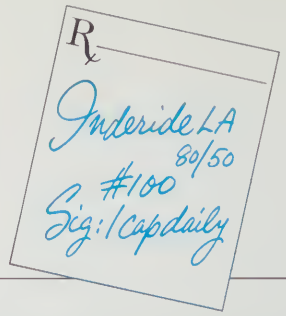
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INDERIDE LA is indicated in the management of hypertension.

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in: 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease; elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance; namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia; congestive heart failure; intensification of AV block; hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss; emotional lability; slightly clouded sensorium; and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis; erythematous rash; fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis; nonthrombocytopenic purpura; thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia; LE-like reactions, psoriasiform rashes; dry eyes; male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping; diarrhea; constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System: Dizziness, vertigo, paresthesias; headache, xanthopsia.

Hematologic: Leukopenia; agranulocytosis; thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm; weakness; restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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The Role of Inheritance in The Pathogenesis of Abdominal Aortic Aneurysms

DAVID W. VICTOR, JR., M.D., ROBERT A. MCCREADY, M.D. AND GORDON L. HYDE, M.D.

Recently, reports of families with two or more first order relatives who have had abdominal aortic aneurysms (AAA) have been described adding support to the observation of individual surgeons for many years. There have been two or three proposed mechanisms of inheritance as well as several possible etiologic factors. Five Kentucky families with AAA in at least two first order relatives are described. Owing to the frequent asymptomatic state of AAA, we believe it is important to obtain a careful family history in all patients with AAA and to strongly suggest evaluation of other family members for AAA by physical examination on a routine basis.

Inheritance has recently been shown to play a role in the development of abdominal aortic aneurysms (AAA).[6–11] The natural history of AAA as studied by a group in Rochester, Minnesota, recently demonstrated that the incidence of AAA is on the rise over the last 30 year period.[2] This increase could not be explained on the basis of better diagnostic tools alone. The surgical results from repair of AAA have constantly improved until morbidity and mortality rates are in an all-time low. Delineation of genetic factors may help define the etiology in the development of AAA and also may aid in earlier detection of patients with the disease.

The following is a discussion of five Kentucky families who have been noted to have had aneurysms occurring in at least two or more first order relatives.

Materials and Methods

Five families are presented. Four were cared for by the authors, one was referred by a member of one of the affected families.

Family #1: In this family a 67-year-old male presented to the Emergency Room with a ruptured abdominal aortic aneurysm. He underwent emergency operative repair and an uneventful recovery. Post-operatively, family history was obtained and it was found that the patient's mother and father (from two different families) each had a brother and a sister who married and they had three male children with proven AAA's. Two had been surgically corrected, and the other died of a ruptured AAA. Other family members, especially the males, are currently being encouraged to come in for physical examination.

Family #2: In this family, an 85-year-old white female was noted to have an asymptomatic, 7 cm. aneurysm which was repaired electively. The family history obtained preoperatively revealed an older brother who had died suddenly from a massively ruptured AAA proven at autopsy. In this family, both male and female were noted to have had aneurysmal disease. No other siblings of this family are alive and children to date have not developed any known aneurysms.

Family #3: As mentioned earlier, this family was not treated by the authors, but was supplied by a member of Family #1, since he was aware of this family's history. In this family of five children, one female died at age 58 of a ruptured aneurysm, another female at age 48 had an elective, uneventful repair, two males are alive and asymptomatic and one male is deceased of unknown cause.

Family #4: This family included two brothers, both of whom had documented AAA's. One died at age 54 with a ruptured AAA, the other died at age 84 with a ruptured AAA. The second brother who died at age 84 also had a son with an AAA discovered at age 62 which was resected successfully and he is alive and well. In addition, the father of the two brothers died suddenly in his 50's when he was taken to the hospital. His

family was told that he died of a leaking heart. In retrospect, a ruptured AAA was suspected in the father as well. Currently there are no other known family members with aneurysms.

Family #5. This family included two brothers, both of whom had documented AAA's and presented within one month of each other. Both had uneventful, elective resections. They had another brother who has been examined and has not yet developed an aneurysm, and also a sister who has not, thus far, sought medical attention. There are no other known family members with aneurysms and the father of this family died at an earlier age of cancer.

Discussion

Individual surgeons have for many years been cognizant of the predilection of aneurysmal disease in certain families. As recently as 1980, Dr. David Tilson of Yale University began publishing several articles about the possible role of inheritance in the pathogenesis of abdominal aortic aneurysms.[6–11] It had been well-known for years that the incidence of aneurysm was far greater in the male than in the female patient. In all, though, both occlusive disease and aneurysmal disease were both known to be associated with atherosclerotic disease. The concept of why some patients developed occlusion and others aneurysms was not well understood.[5,7]

Several etiologies have been proposed with respect to the pathogenesis of abdominal aortic aneurysm. One theory is that decreased hepatic copper levels may predispose to the development of aneurysmal disease. The basis of this theory is that copper is an essential cofactor for the enzyme which catalyzes reactions leading to the cross linking of collagen and elastin.[9,11] This particular etiology has been demonstrated in the animal model of the blotchy mouse[1] and this copper deficiency was also noted in skin sampling from patients with AAA.[9] Another theory proposed is that patients with aneurysms had a higher circulating serum elastolytic activity and their leukocytes exhibited granular elastolytic activity much higher than controls.[4] This increased elastolytic activity was thought to have attributed to the degeneration of the elastin within the arterial wall leading to the aneurysm formation. Another theory of interest is that the simple mechanics of the bifurcation angle of the iliacs might increase the risk of aneurysmal formation.[5] In one study, it was found that 100 consecutive arteriograms of patients with AAA had an average iliac bifurcation angle of 58° as opposed to 100 consecutive patients with occlusive disease of the abdominal aorta noted to have an average bifurcation angle at the iliacs of 38°. Still another theory suggests that patients with larger arteries, *ie*, arteriomegaly, are more prone to aneurysm formation.[8]

It is possible to explain any or all of these etiologic theories on the basis of inheritance. Because of the high predisposition in males, it was first thought, and proposed by Tilson, *et al*,[6,10] that the pattern of inheritance was probably an X linked recessive variety. However, in recent studies by Tilson, *et al*, it was noted that the X linked mechanism explained several families which were reviewed but did not explain others adequately where males were noted to pass on the trait to males with an autosomal dominant type of inheritance but with a multi-factorial type presentation.[6]

In our families, Family #1, #4, and #5 seem to fit the X linked category. Families #2 and #3 could possibly be the autosomal dominant mechanism, in that both male and female family members had the trait.

Study of the inheritance of aortic aneurysm disease is made more difficult because they present late in life which makes families more difficult to study because some family members die from other causes.

We suggest that any person who has had an AAA diagnosed should have a careful family history taken and then subsequent, routine examination of other family members. If there is any doubt of the presence of aortic aneurysm in other family members, sonography, abdominal cross-table lateral plain film and CT scan are all relatively good non-invasive tests which could confirm or exclude the diagnosis.

Conclusion

The role of inheritance in the development of AAA seems likely. Random occurrence does not adequately explain the high incidence of aneurysms in multiple families such as these. Because of this role of inheritance and the possible etiological theories which could be inherited, we strongly suggest that the diagnosis of abdominal aortic aneurysm should be sought in other family members of patients who have had the previous diagnosis of abdominal aortic aneurysm.

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Suppurative Puerperal Ovarian Vein Thrombophlebitis

J. MARSHALL MAHAN, M.D. AND WALTER L. THOMPSON, M.D.

Suppurative ovarian vein thrombosis is a most serious complication of the post-partum period. A CAT scan is a non-invasive procedure which is most helpful in the diagnosis of this disease. This is the case of a patient with suppurative ovarian vein thrombophlebitis, who underwent a CAT scan to make the diagnosis, followed by excision of the right ovarian vein due to failure of medical therapy.

Thrombosis of the pelvic veins in the immediate postpartum period has been recognized as a clinical entity since Trendelenberg[1] treated a patient in 1901 with postabortal thrombophlebitis with right iliac and right ovarian vein ligation. After 1920 interest in the disease waned to a point that when it was described by Austin[2] in 1956, it was thought to be a recently defined disease. It was believed to be a rare postpartum complication until 1971, when Brown and Munsick[3] reviewed 20 cases and added 16 more. Some now estimate it may occur as often as one in 600 deliveries.

Recently, Shaffer *et al*[4] and Angel and Knuppel[5] have reviewed two cases using a CAT scan to diagnose ovarian vein thromboses. Munsick and Gillander[6] have recommended that CAT scanning be used to help with the diagnosis of puerperal ovarian vein thrombophlebitis as well.

The following report presents a patient with sign and symptoms of ovarian vein thrombophlebitis who underwent an IVP, a CAT scan, lung scan, and finally, excision of the ovarian vein.

Case Report

This patient is a 27-year-old gravida II, para I, who had an uneventful, low forceps delivery of a nine pound male infant, with epidural anesthesia without complication. The patient had a temperature of 103.8 within 24 hours following her delivery. Appropriate cultures were obtained and the patient was treated with Keflex, 500 mg p.o. every six hours. During the next 24 to 48 hours her temperature decreased and the patient seemed to be doing well. However, three days postpartum, the patient again developed a temperature of 101° and complained of right pelvic and right flank pain.

She continued to have fever and spiked temperatures intermittently for the next three days. Her antibiotic was changed to Mandol, two grams every four hours, and the patient felt fairly well between febrile episodes and when her pain recurred. Physical exam was unremarkable, except for mild right lower quadrant tenderness and right flank tenderness. Examination of the pelvis was not remarkable. An intravenous pyelogram was obtained which showed right hydronephrosis believed to be secondary to the postpartum state.

Approximately one week after her delivery she began having some mild dyspnea in addition to continuing fever, right flank pain and right lower quadrant pain. Basilar rates were detected in both lung fields.

The patient received Cleocin and Tobramycin in addition to Mandol on her seventh postpartum day. Heparin was also begun with the presumptive diagnosis of septic ovarian view thrombophlebitis, with possible pulmonary embolism. A lung perfusion scan showed no evidence of pulmonary emboli.

A CAT scan on the seventh postpartum day showed definite ovarian vein thrombophlebitis with liquefaction in the midportion of the right ovarian vein. The right ovarian vein was extremely dilated, compressing the right ureter (Fig. 1.).

The patient was continued on Heparin and antibiotics for the next 72 hours but continued to have spiking fevers, chills and leukocytosis. A chest x-ray 10 days postpartum showed increased basilar infiltrates in both lung fields and an increase in cardiac diameter.

The patient did not respond to medical therapy and had fevers up to 102°, mild to moderate dyspnea, and

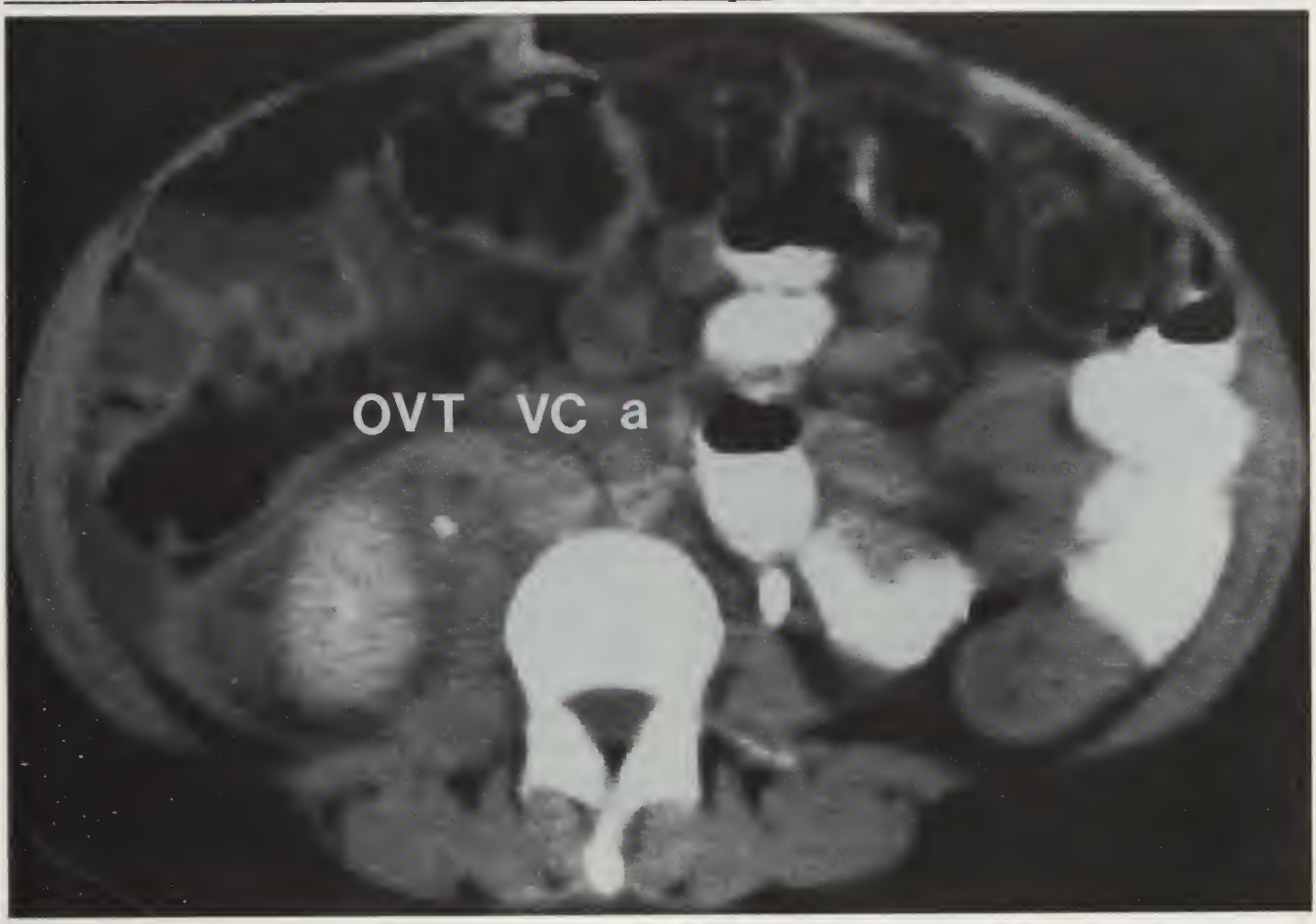


Fig. 1: This picture shows the right ovarian vein (OVT) which has a thickened wall with a blood clot in its center. The right ureter is being compressed by this large indurated vein. VC is the vena cava and (a) represents the aorta.

leukocytosis with a white count up to 22,000 WBCs continued.

An inferior vena cavagram was performed that showed no clot in the inferior vena cava. The patient underwent a pelvic laparotomy on the 10th postpartum day and had excision of the right ovarian vein. The vein was enlarged and indurated with a purulent liquifying clot in its center (Fig. 2). A right salpingo-oophorectomy and appendectomy were also performed. There was marked induration along the entire course of the vein which was extremely dilated. Care was taken to free the ovarian vein at its insertion into the inferior vena cava. This area was clamped and ligated and then the rest of the vein removed. The right ureter was visualized to prevent damage during the dissection. Cultures obtained of the abdominal fluid and from the clot in the ovarian vein failed to show any growth. The IV antibiotics were continued for five days. Heparin was discontinued following the patient's surgery, since there was no clot extension into the inferior vena cava.

The patient's response was dramatic. Her lungs cleared and the PO_2, WBC count and temperature became normal.

She was discharged with no therapy, eight days following surgery, and at three months exam the patient was entirely recovered.

Etiology

The etiology of puerperal suppurative ovarian vein thrombophlebitis is believed due to endothelial injury of the veins from uterine bacterial contaminants, stasis of blood in the ovarian veins, and the hypercoagulability state seen in late pregnancy and in the postpartum state.

Munsick and Gillanders[6] postulate that an overt or covert metritis occurs sending bacterial contaminants from the uterus up the ovarian veins. This causes endothelial injury and may be followed by clot formation. They postulate that the blood flow on the left protects the left ovarian vein from infection. In their review 80% of the cases showed involvement of the right ovarian

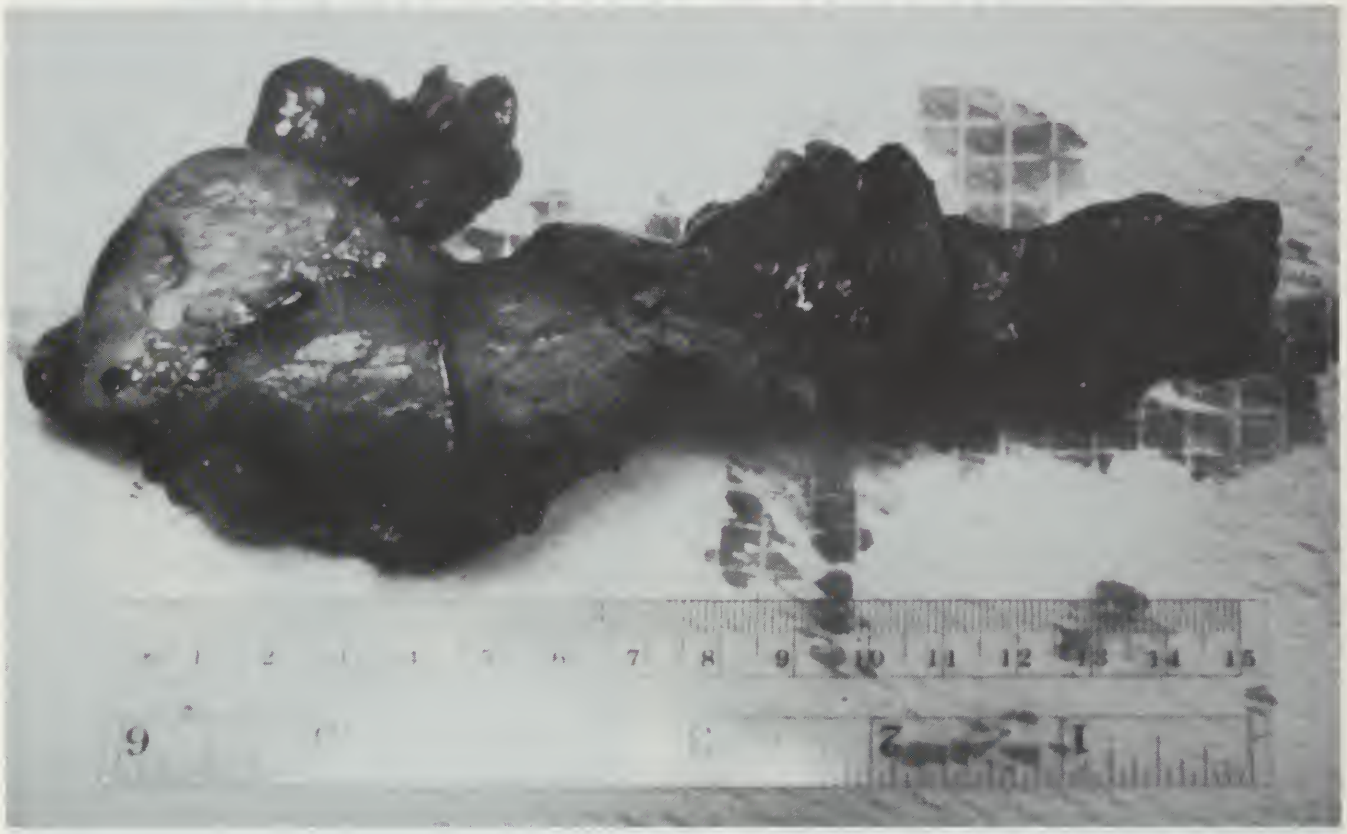


Fig. 2: This picture shows the postoperative specimen of the right ovarian vein. The vein is enlarged, indurated with a purulent liquifying clot in its center.

vein, 14% had bilateral involvement and 6% had unilateral involvement of the left. The preponderance of right-sided involvement may be due to compression of the right ovarian vein from the dextrorotation of the uterus, or the antegrade flow of blood from the uterus to the vena cava through the right ovarian vein.

Secondly, dilatation and stasis of the ovarian veins have been shown by Hodgkinson[7] to be present in the ovarian veins in late pregnancy. There is a stagnant pool of blood collecting in the ovarian vein of the postpartum patient. If bacterial contaminants from the uterus enter the ovarian circulation, an infected blood clot can develop.

Thirdly, there is known to be hypercoagulation in late pregnancy and in the postpartum state[8]. There is a significant elevation in factor VII (proconvertin), factor IX (plasma thromboplastin), and occasionally factor X (Stuart factor) which could be an etiologic factor in developing thrombophlebitis. Plasma thromboplastin may be generated from placental fragments and intrauterine contents. Fibrinogen and prothrombin are also present in higher levels.

Suppurative thrombophlebitis occurs when bacterial invasion of the clot produces liquefaction, fragmentation, and possible septic embolism. During the liquefaction of infected thrombi, showers of small emboli may be released with resulting septicemia and metastatic abscesses. In the lungs there is an associated pneumonitis, pleurisy, and possible abscess formation. The clinical picture is that of sepsis rather than venous occlusion with large emboli. If the process is nonpurulent, the picture can be that of pulmonary embolism.

Signs and Symptoms

The cardinal findings of ovarian vein thrombophlebitis are pain and fever. The fever, while low grade at first, later becomes high and spiking. It often persists despite adequate antibiotics.

Fever usually occurs two to four days after a routine delivery, but may occur a number of weeks later. Pain is a common finding, but may be totally absent. In some rare cases, the patient may present with septic pulmonary embolism as the presenting symptom of ovarian vein thrombophlebitis. The pain described by most patients occurs in the right lower quadrant and right pelvis

and often in the right flank. It is commonly confused with acute pyelitis, ovarian abscess, or acute appendicitis. There is often some tenderness to deep palpation in the right pelvis and right lower quadrant of the abdomen. Severe gastrointestinal symptoms such as ileus, severe nausea, and vomiting are rare findings. The pelvic exam usually is unremarkable with the uterus not being tender and no adnexal masses palpable. In some cases, however, there may be some tenderness and induration in the area of the broad ligament on the affected sides.

The most remarkable and dependable physical finding is an abdominal mass. This mass—more than any other sign—differentiates puerperal ovarian vein thrombophlebitis from other causes of abdominal pain. It has been reported to be palpable in 50% of the cases. It is linear and rope-like, with the average size being from 2 to 8 cm in diameter and usually is very tender. It is palpated deep and lateral to the cornual area of the uterus and may extend cephalad and lateral.

The differential diagnosis in the postpartum state must include pyelonephritis, acute appendicitis, twisted ovarian cyst, torsion of the ovary, pyosalpinx, hematoma in the broad ligament, degenerating uterine fibroids, complete or partial volvulus, perinephric abscess, subdiaphragmatic abscess, perimetritis, and pelvic cellulitis.

Diagnosis

Useful diagnostic studies include abdominal x-rays showing a pelvic mass, ureteral obstructions on IVP as shown by Derrick,[9] pelvic venogram, laparoscopy, ultrasound and CAT scan of the pelvis. Ultrasound is most useful in ruling out an ovarian or pelvic abscess. CAT scanning is thought to be the best diagnostic procedure available at this time and is safe and noninvasive. The CAT scan typically shows an enlarged ovarian vein and may show compression of the ureter. The appearance of the vein shows a mass containing rounded, low attenuation areas which in some sections are surrounded by higher margins. This appearance is seen also in protal and caval thrombosis.[10,11] The low density center represents the thrombus and the higher density margin indicates the thickened and indurated vessel wall (Fig. 1).

Treatment

The treatment of suppurative POVT initially is medical. Antibiotic therapy should be given to treat the most common infecting organisms. These usually are anaerobic streptococcus, streptococcus faecalis, or beta hemolytic strep. Antibiotics effective against gram negative organisms such as E. coli and the anaerobes should also be given. Therefore, penicillin or a cephalosporin, aminoglycosides, and metronidazole or clindamycin should be started. Heparin therapy also should be given in therapeutic doses IV for 10 days to be followed by Coumadin therapy for at least six weeks following the delivery.

Surgery is only recommended[12] when the patient continues to be symptomatic over a number of days despite good medical management; develops clinical or scintiscan or arteriographic evidence of pulmonary embolism; or cannot be anticoagulated. If the patient is not septic but continues to show signs of pulmonary embolism, filter interruption of the vena cava should be considered. The recommended surgical technique is to clamp the anastomosis of the ovarian vein at the vena cava prior to excising that vein. This will prevent more purulent material from entering the vena cava. The uterus, tubes, and ovaries can be spared if there is no sign of infection or abscess in either tube or ovary. Excision of the infected vein usually is dramatic and therapeutic. In addition to removing the infected vein, the vena cava must be ligated if there is evidence of extension of the clot into the vena cava. A preoperative vena cavagram is advisable. There is a difference of opinion as to the surgical treatment if the patient is explored for acute appendicitis or ovarian abscess, and ovarian vein thrombophlebitis is found at the time of surgery. Patients have done well when surgery was discontinued and they were treated with appropriate antibiotics and anticoagulants. However, Maull[13] advises careful ligation of the involved vein followed by excision. It is thought that this does not unduly jeopardize the patient and this therapy usually is curative.

Summary

Suppurative ovarian vein thrombophlebtis can be suspected in the postpartum state when there is fever and right pelvic pain without specific findings and no response to antibiotic therapy. A CAT scan is a useful diagnostic procedure in ovarian vein thrombophlebitis. IVP may show compression of the right ureter as well. Surgery is recommended only if there are definite signs of pulmonary embolism, or the patient's symptoms do not abate with anticoagulant therapy and antibiotics. In suppurative ovarian vein thrombophlebitis it often is best to remove the entire ovarian vein. In some cases, the vena cava will have to be occluded.

In nonseptic or nonsuppurative ovarian vein thrombophlebitis, an ovarian vein ligation or inferior vena caval ligation may be adequate. In the case presented, the right ovarian vein was excised, a CAT scan obtained prior to the surgery confirmed the diagnosis and the right ovarian vein was excised. The specimen shows obvious purulent material in the middle of this thrombus.

Synopsis

A patient with suppurative ovarian vein thrombophlebitis is presented with diagnosis being made by CAT scan.

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PRECAUTIONS: General: Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

Information for Patients: Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

Drug Interactions: Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

Carcinogenesis, Mutagenesis, Impairment of Fertility: No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

Pregnancy Category C: Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

Pediatric Use: The safety and effectiveness of SORBITRATE in children has not been established.

ADVERSE REACTIONS: Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

DOSAGE AND ADMINISTRATION: For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. *The oral controlled-release forms of isosorbide dinitrate should not be chewed.*

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The Pulmonary Manifestations of Systemic Sclerosis

BARBARA PHILLIPS, M.D., FCCP, RALPH D. POWELL, JR., M.D., DAVID GAMMON, M.D. AND JOHN H. WOODRING, M.D.

Progressive systemic sclerosis is a rare condition which typically strikes women in the prime of life. Pulmonary involvement occurs in about half of these patients. The clinical presentation is non-specific; dyspnea is the most common complaint, and basilar crackles may be present. Radiographic findings are common (13.5-78%) and most often consist of increased diffuse interstitial markings in a reticular pattern. Pulmonary function tests demonstrate a restrictive ventilatory defect (reduced lung volumes) and impaired diffusion. Hypoxemia and hypocarbia are common, and pulmonary artery hypertension may be seen. Pathologic changes in the lung are non-specific interstitial fibrosis and intimal hyperplasia of branches of the pulmonary artery. Alveolar cell carcinoma, silicosis, aspiration pneumonia, respiratory failure, and cor pulmonale are associated complications. Treatment includes prophylaxis (smoking cessation, pneumococcal and flu vaccinations), aggressive treatment of aspiration pneumonias, and oxygen when hypoxemia develops. Steroids may improve well-being but not outcome. D-penicillamine is promising, but has not been extensively studied.

A 36-year-old white female presented to another hospital with a chief complaint of nausea, vomiting and dyspnea. She was well until seven months prior to admission, when she developed an intermittent burning sensation in her feet. About six months prior to admission, she began noticing morning stiffness of several large joints as well as intermittent cyanosis of her fingers and toes. About three months prior to admission, she developed diffuse substernal chest pain which occurred only on deep inhalation. Five days prior to admission, she awoke with severe shortness of breath, nausea, and vomiting; these symptoms progressed, and she sought medical attention at her local hospital. She was found to be in both respiratory and renal failure, and required intubation and positive end-expiratory pressure in order to maintain adequate oxygenation.

Her past medical history revealed that she had taken oral contraceptives for 17 years. She had had a positive PPD at the age of seven years, which was probably never treated. She had had three normal pregnancies with term births. She denied allergies.

She had accumulated 22 pack years prior to smoking cessation 18 months before the onset of this illness. She did not drink. At the time of admission, she was a housewife, but formerly had worked as a front-end loader for an excavating company for over seven years and had some exposure to dust at that time. Her family history was unremarkable. Review of systems was positive for headache.

On transfer to the Intensive Care Unit at University of Kentucky Medical Center, her blood pressure was 170/100 with a paradox of 15 mmHg. Her pulse was 90, respirations were 24, and temperature was 98.6° F. Skin exam revealed telangiectasis on her chest, without rashes, petechiae, or bruises. HEENT exam revealed probable papilledema with hemorrhages and cotton wool spots in her left eye. She had poor dentition. Neck exam revealed neck vein distention. On ausultation of the lungs, she had a few basilar crackles, as well as inspiratory wheezes and coarse breath sounds. Cardiac exam revealed a PMI in the seventh intercostal space in the anterior axillary line; there was an S_3 gallop. Examination of the abdomen revealed diffuse upper quadrant tenderness; her liver was 12 centimeters to percussion. She had pain with movement of her ankles, knees, wrists, and elbows, but no erythema, heat or effusions. Extremity exam revealed cyanosis of the fingers and sclerodactyly (figure 1). She did not have clubbing.

Initial laboratory data included a WBC of 27.2 × 10^3/ml. Hemoglobin was 10.4g/dl, platelet count was 120,000/ml. Peripheral blood smear showed shistocytes, basophilic stippling, and toxic granulations. She



Fig. 1: Hands of the patient presented in the Case Report, demonstrating sclerodactyly and cyanosis of the fingers.



Fig. 2: Chest radiograph of the patient presented in the Case Report, demonstrating cardiomegaly and alveolar infiltrates, consistent with pulmonary edema.

had a normal sodium and potassium with a chloride of 95 mmol/L and bicarbonate of 22 mmol/L. Creatinine was 10.1 mg/dl. Phosphorus was 10.8mg/dl, calcium was 3.7mEq/L. Bilirubin was 1.4mg/dl. LDH was 200ImU/ml, and SGOT and SGPT were 148 and 116U/L, respectively. Arterial blood gas on CPAP 10, F_IO_2 0.6: PaO_2 77mmHg, $PaCO_2$ 35mmHg, pH 7.38. Urinalysis showed 1+ protein and 4+ blood. A chest film was consistent with pulmonary edema (figure 2). Electrocardiogram showed sinus tachycardia.

A presumptive diagnosis of volume overload and pulmonary edema secondary to acute renal failure caused by scleroderma was made. She was started on high dose intravenous steroids. A pulmonary artery catheter was inserted and revealed a central venous pressure of 20mmHg, right ventricular pressure of 70/10mmHg, pulmonary artery pressure of 66/40mmHg, pulmonary capillary wedge pressure of 30-40mmHg, and a cardiac output of 8.4 liters/min. She underwent emergency peritoneal dialysis on admission, and was extubated the following day.

She continued daily peritoneal dialysis with fall in creatinine, blood pressure and weight. Her oxygenation improved. Her pulmonary artery catheter was removed on the fourth hospital day; the last readings were: pulmonary artery = 16/13 mm Hg, pulmonary capillary wedge 7mmHg, cardiac output 4-6 L/min.

Pulmonary function tests on the 11th hospital day were as follows: forced vital capacity (FVC) 2.81 liters (83% predicted), forced expired one-second volume (FEV_1) 2.23 liters (76%), total lung capacity 3.8 liters (77%), single-breath carbon monoxide diffusion capacity (D_LCO) 10.6 ml/min/mmHg (50%), residual volume (RV) 1.01 liters (60%). A two-dimensional echocardiogram revealed mild concentric left ventricular hypertrophy and small posterior and anteromedial effusions. Endoscopy was performed because of nausea and vomiting; a small duodenal ulcer was seen.

Cryoglobulins, anti-Smith antigen, LE prep, ANA, and rapid protein reagent were negative. CH_{50} and C_3 levels were slightly depressed at 140 and 64mg/dl, respectively. Rheumatoid factor was less than 15 IU/ml. ASO titer was 625 Todd units.

She was seen in consultation by Rheumatology and Opthalmology, who felt her course was most consistent with systemic sclerosis. She had Tenkoff peritoneal dialysis catheter placed, was continued on steroids, and started on penicillamine, 250mg poqd. She was discharged 20 days after admission, much improved.

She was seen in clinic about a month after discharge and was doing well. Her main complaints were continued discomfort from Raynaud's phenomenon, dyspnea on exertion, and occasional epigastric pain. She appeared to be doing quite well with CAPD. Plans were made to increase her penicillamine dose, and to taper steroids. She was started on Dibenzyline for symptomatic relief of Raynaud's phenomenon.



Fig. 3: Chest radiograph demonstrating increased interstitial markings at the bases of the lungs.

Epidemiology

Progressive systemic sclerosis (PSS, scleroderma) is a rare disorder, affecting only two to 12 people per million per year. It is three or four times more common in women than in men, and generally strikes people in the prime of their lives, with a peak incidence in the fifth decade.[1]

Pulmonary involvement occurs in nearly half the patients with scleroderma,[2] and is a major factor in prognosis of the disease.

Pathogenesis

Scleroderma is almost certainly an autoimmune phenomenon. Evidence for an immune pathogenesis of scleroderma includes its association with arthritis, synovitis and thymic hyperplasia. PSS also frequently exists in association with other diseases which are known to be immunologically-mediated, such as Sjögren's and Hashimoto's syndromes; it overlaps with dermatomyositis, and is clinically similar to rheumatoid arthritis and polymyositis. A variety of serologic abnormalities may be seen with systemic sclerosis, including hypergammaglobulinemia, monoclonal gammopathy, cryoglobulinemia, and positive rheumatoid factor and LE preps. There is also a varying incidence of positive rapid protein reagent (RPR) and antinuclear antigen (ANA) tests. T-lymphocytes are reduced in number in peripheral blood although cell-mediated immunity appears to be functionally normal. Although the precise mechanism is unclear, fibroblast function is deranged in PSS. The fibroblasts of sclerodermatous patients synthesize abnormal collagen, which has a high proportion of reducible cross links, much like that seen in embryonic skin. There is also synthesis of more collagen than normal.[1]

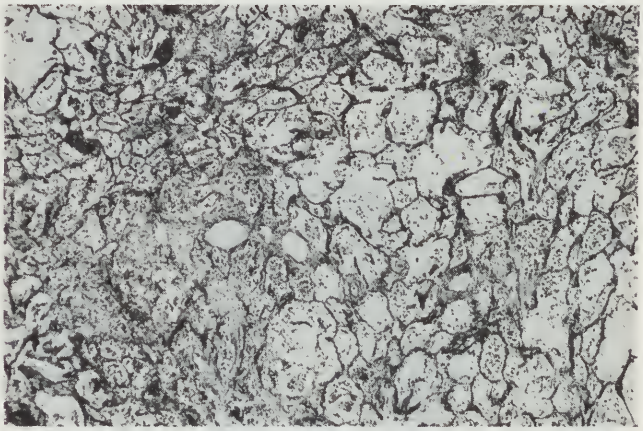


Fig. 4: Non-specific interstitial fibrosis and thickened alveolar walls in a 51 year-old woman who died with progressive systemic sclerosis. Elastic van Giesen × 50.

Clinical Presentation

Although the pulmonary manifestations of systemic sclerosis typically develop after the onset of joint and skin involvement, they can occasionally be the presenting complaint. Shortness of breath and dry cough are the most common pulmonary symptoms, but orthopnea and paroxysmal nocturnal dyspnea may also occur, particularly if there is cardiac involvement. Hemoptysis, fever, pleuritic chest pain, and hoarseness have also been reported, although they are uncommon.[3]

Physical findings in the chest in scleroderma are nonspecific. Typically, fine basilar crackles and coarse breath sounds are heard in a tachypneic patient. Findings of cor pulmonale and pneumothorax may be seen, and clubbing is reported to occur.

Radiographic Findings

13.5 to 78% of patients with PSS have a radiographic abnormality.[4] The classic radiographic finding is diffuse interstitial disease with a reticulonodular pattern. The lower lung zones are predominantly involved, particularly early in the disease. As the disease progresses, the fine reticulation may evolve into coarse nodules, and volume loss develops (figure 3). Small peripheral cysts, particularly at the bases, have been reported, as well as spontaneous pneumothorax, pre-



Fig. 5: Same patient as in Figure 4.
Small branch of pulmonary artery showing distinct intimal hyperplasia with significant narrowing of the lumen. Elastic van Giesen × 100.

sumably from rupture of cysts. In contrast to rheumatoid arthritis, pleural involvement is distinctly rare in scleroderma. As in the case presented here, cor pulmonale or pulmonary edema may be seen. Honeycombing may be seen in the end stages. Calcinosis is rare, but does occur, as does bronchiectasis. Patients with scleroderma are at increased risk for pneumonia, and new changes in chest radiographs should probably be considered infectious until proven otherwise.

Pulmonary Function Tests

Virtually all patients with progressive systemic sclerosis have some abnormality on pulmonary function testing.[5,6] The classic findings are a restrictive ventilatory defect with impaired diffusion. Thus, there is a reduction in total lung capacity, forced vital capacity, and diffusion of carbon monoxide. If there is radiographic evidence of fibrosis, pulmonary function impairment is generally more severe. In contrast to most other causes of pulmonary fibrosis, scleroderma may reduce total lung capacity primarily at the expense of inspiratory capacity, so that residual volume is normal or even increased.[6,7] Dynamic lung compliance and airway resistance are also reduced. Peak inspiratory and expiratory force measured at the mouth are normal. Although some have advocated the "hide-bound chest" mechanism of restrictive ventilatory defect in scleroderma, normal thoracic wall compliance and normal maximum inspiratory and expiratory mouth pressures tend to discount this hypothesis.[5,6] Minute ventilation is usually increased; alveolar ventilation, however, is normal or decreased because of an absolute and relative increase in the physiological deadspace due to widened airways and ventilation/perfusion inequalities.

Arterial blood gases in patients who have progressive systemic sclerosis with lung involvement usually show hypoxemia, hypocarbia and respiratory alkalosis. The explanations for the hypoxemia are several: thickening of the alveolar capillary walls with a resultant diffusion defect, physiologic veno-arterial shunting because of perfusion of hypoventilated alveoli, and chest wall restriction due to sclerodermatous skin changes have all been implicated.[8] As in most interstitial lung diseases, carbon dioxide retention is a rare and late finding.

Pulmonary Artery Hypertension

The incidence of pulmonary artery hypertension in scleroderma is uncertain. Pulmonary hypertension occurs independently of alterations in pulmonary function, and its occurrence tends to correlate with a clinical history of right ventricular hypertrophy or right sided heart failure.[9] The mechanisms are presumed to be replacement or compression of the pulmonary capillary bed by fibrosis, hypoxia, and primary arterial chances.[9-11]

Pathologic Changes

There are two major pathologic findings in the lungs usually described in patients with progressive systemic sclerosis. The first is a non-specific type of interstitial fibrosis which is usually symmetrical and tends to involve more severely the lower portions of both lungs (figure 4). The other main feature, which is also nonspecific, is involvement of blood vessels, primarily branches of pulmonary artery. These are involved almost exclusively by intimal hyperplasia similar to that seen in systemic arteries in many other sites throughout the body (figure 5).

It is tempting to speculate that the fibrosis is entirely secondary to the vascular disease. However, there is little sound data to support this speculation and it seems reasonable to assume that factors other than ischemia play a role in the pathogenesis of the fibrosis.

Associated Pulmonary Complications

Scleroderma is associated with several conditions which manifest themselves as chest disease. These include lung cancer, silicosis, aspiration pneumonia, respiratory failure, and cor pulmonale.

Although malignancy is a known complicating factor of several collagen vascular diseases, particularly polymyositis, the incidence of malignancy in scleroderma is not strikingly increased. As of 1980, there were about 54 cases of malignancy reported in association with PSS. What **is** unusual about the association of PSS and lung cancer is the cell type distribution; more than half of the reported cases of lung cancer in PSS are alveolar cell carcinoma, a very rare tumor. Other characteristics of sclerodermatous patients who develop lung cancer are a striking female predominance, a long standing history of scleroderma with marked pulmonary fibrosis, failure for the tumor to be recognized during the patient's life, and obvious metastasis at autopsy.[12,13]

Since Bramwell's report in 1914 of the frequent occurrence of scleroderma in stone masons,[14] there have been several reports in the literature confirming the association of scleroderma with silicosis. Manifestations of PSS in this group of patients are somewhat atypical, in that such patients generally exhibit an acute onset of scleroderma, and frequently have pleural effusions. Radiographic evidence of both pulmonary scleroderma and silicosis can be seen in these patients. It is unclear exactly what the causal relationship between these two diseases is.

Because of the esophageal dysmotility which occurs in scleroderma, aspiration pneumonia occurs frequently, and may contribute to the fibrosis and bronchiectasis which can develop.

There are several reports in the literature[15-17] of respiratory failure in scleroderma, caused by fibrosis of the chest wall or diaphragm, or by respiratory muscle weakness. Cor pulmonale, because of chronic hypoxemia and pulmonary artery hypertension, is also a known complication.

Prognosis

The prognosis in scleroderma depends on the degree of involvement of the lungs, heart and kidney. Prognosis is in general fairly dismal, with a five-year survival rate between 49 and 73%. Older patients, men, and black women appear to have a worse prognosis when afflicted with PSS.

Treatment

There are few good studies on which to base rational treatment of this disease. Steroids afford symptomatic relief in some cases, but do not appear to affect prognosis or to have lasting effects once they are discontinued. Colchicine, relaxin, serotonin antagonists, and immunosuppressive agents have all been used, but none has proven to be an effective agent. Prophylactic and supportive care, e.g. smoking cessation, pneumococcal vaccine, flu vaccine, and prompt and aggressive treatment of pneumonias, is essential in these patients.

D-penicillamine (D-3 mercaptovaline) is an agent which shows some promise in the treatment of scleroderma. This drug interferes with the intramolecular cross-linking of collagen. It was first used in Wilson's disease, and was noted to cause thinning of the skin in patients in whom it was used. The dose is 500-1500mg. orally a day for at least six months. The most common side effect is hypogeusia, but leukopenia may occur. In a retrospective analysis, Steen[18] and coworkers demonstrated a greater five year survival (88 vs. 66%), fewer episodes of new visceral organ involvement, and less skin involvement in 73 patients who received penicillamine who were compared with 45 patients who did not.

Summary

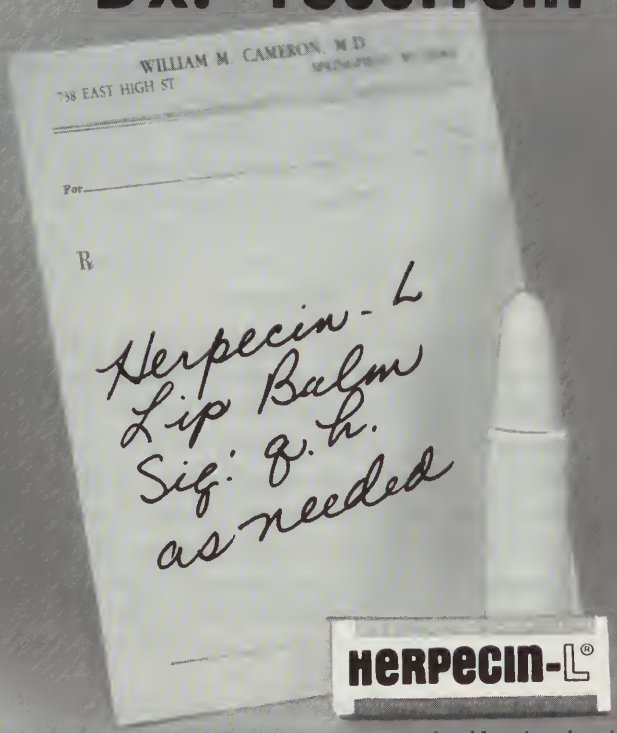
Scleroderma is a rare but devastating disease. The physical findings and symptoms related to chest involvement are nonspecific, but virtually all patients have some pulmonary function testing abnormality, generally a diffusion defect and a restrictive ventilatory defect. Radiographically, the disease manifests as an interstitial lung disease with basilar fibrosis. Although the prognosis is poor, D-penicillamine shows promise as a therapeutic agent.

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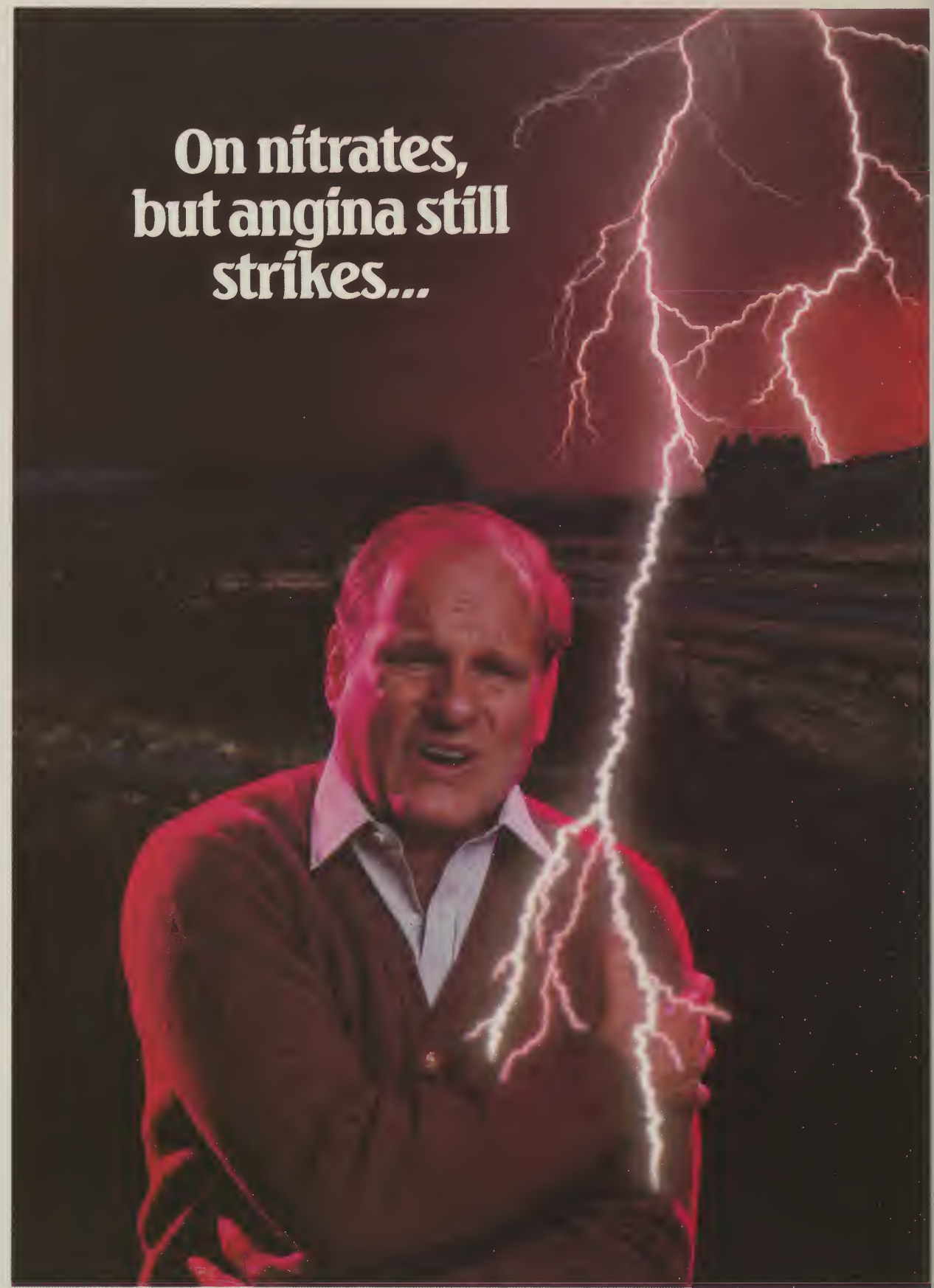
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Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.)* Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions*.) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings*.) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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Fatigue

"There is one human circumstance which leaves many counselors perplexed, feeling they lack either the expertise or the understanding to work with it. This is the problem of meaninglessness, the failure to find meaning and purpose in life or the loss of it. The person is stopped, bottled up; there seems to be no reason to step out into the rough and tumble of life, or even to arouse oneself to the problem. Yet this is a problem that presents itself to the counselor either masked by some symptom or reflected by a feeling that one simply does not know what can be the matter with him. Generally it is clear that nothing quite makes sense. Among the primitives this condition is known as "Loss of soul," and it is my experience that it occurs very frequently among moderns who do not know what to call it."

Morton Kelsey

"I'm so tired. I can hardly get out of bed. All I want to do is lie on the couch and watch t.v. It's as if all the air is out the balloon."

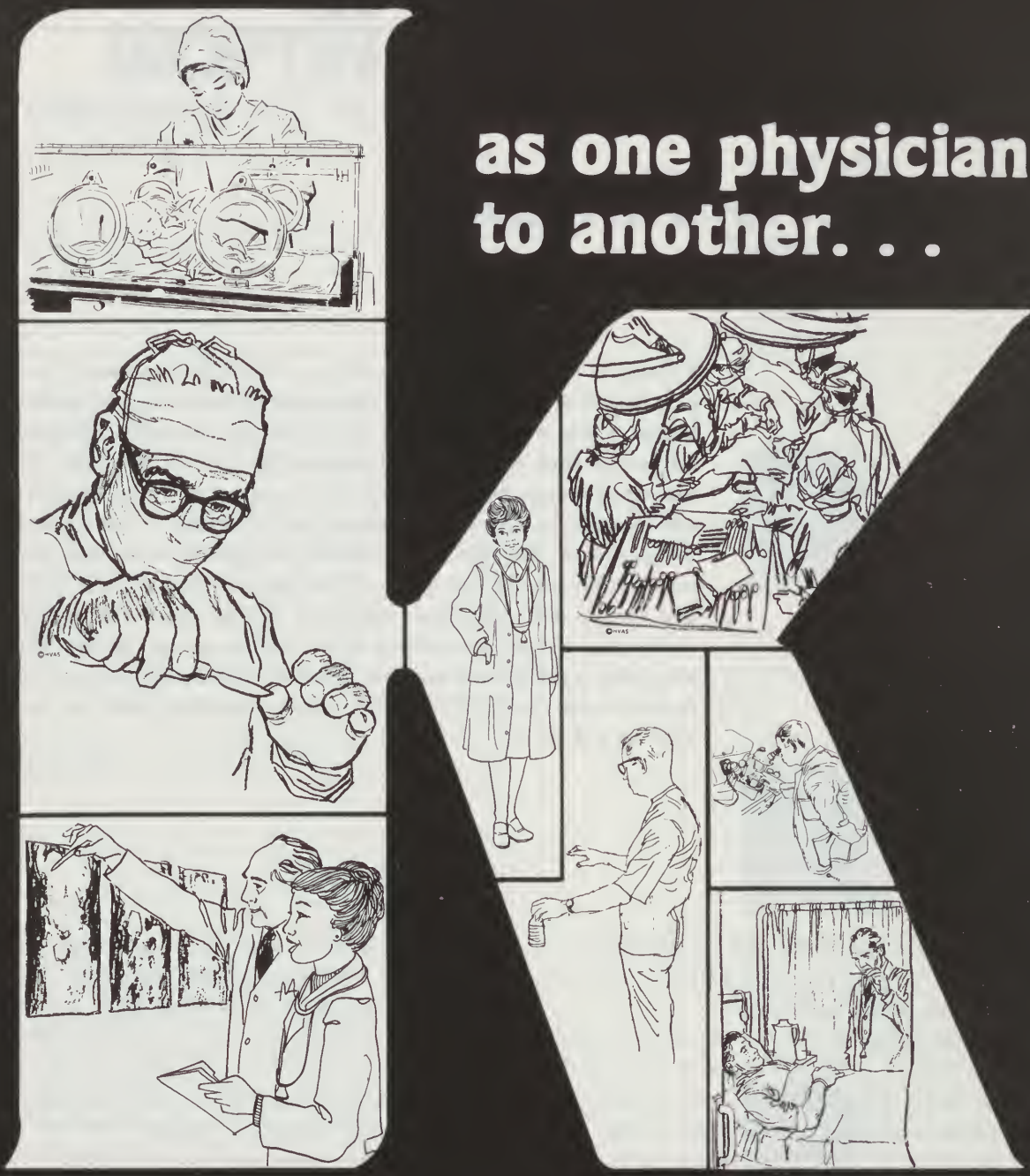
I get a sinking feeling when I hear the above or words similar to it. Without exception this is malaise of the psyche, soul, spirit, not of the body. Some people seem to have this temporarily and recover spontaneously only to repeat the cycle in the future. Others seem to be chronically afflicted.

The psychiatric approach would be to label these people depressed and to treat appropriately. This may be correct in some, but I am struck by how frequently antidepressants fail ("I can't take your medicine. It made me feel awful") either because the patient unconsciously is resistant to any sort of pharmacologic approach or because medication is not effective.

I wish I had an answer to the problem. My personal approach is to use placebo (vitamins) as a therapeutic maneuver, to give assurance that I am interested, that no disease has been overlooked (cancer) and to stand by. I doubt that this does much good. If people don't come back I suspect it's because they caught my aura of failure and simply live with their symptoms.

In our 20th century culture it has become necessary to identify and explain in biologic terms any departure from the norm. Obviously if our symptoms can be externalized our own responsibility is negated. With the fatigue problem, I think we fall into the trap of looking for biologic causes. It is easier to deal with than the psyche and much more in keeping with our image. And so we perpetuate the misconceptions.

Paul C. Grider, Jr., M.D.



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Use of HYDERGINE therapy should be continually reviewed, since presenting clinical picture may evolve to allow specific diagnosis and specific alternative treatment, and to determine whether any initial benefit persists. Modest but statistically significant changes observed at the end of twelve weeks of therapy include: mental alertness, confusion, recent memory, orientation, emotional lability, self-care, depression, anxiety/fears, cooperation, sociability, appetite, dizziness, fatigue, bothersome(ness), and overall impression of clinical status.

Contraindications: Hypersensitivity to the drug; psychosis, acute or chronic, regardless of etiology.

Precautions: *Because the target symptoms are of unknown etiology, careful diagnosis should be attempted before prescribing HYDERGINE (ergoloid mesylates) preparations.*

Adverse Reactions: Serious side effects have not been found. Some transient nausea and gastric disturbances have been reported, and sublingual irritation with the sublingual tablets.

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Health and Safety Tip From the American Medical Association

MARKERS LISTED TO IDENTIFY ALCOHOLICS

How can you tell that a regular, heavy drinker has crossed over the line and become an alcoholic, who no longer can control his or her drinking?

The American Medical Association in its Manual on Alcoholism points to some markers to help identify the alcoholic.

1. Increasing consumption of alcohol, with frequent, perhaps unintended, episodes of intoxication.

2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

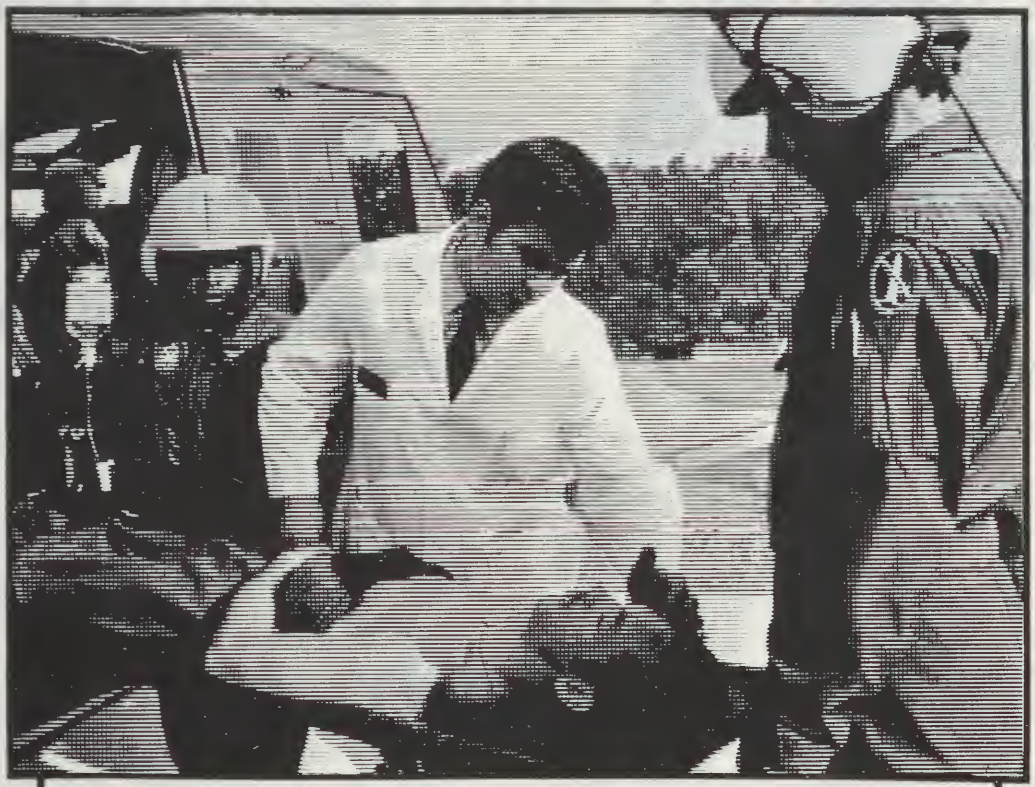
11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

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EDITORIAL



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Trendy

For the third year this issue publishes a special, the Report of the Committee to Investigate Changing Trends in Medicine as a feature separate from and one month in advance of its time honored home, the Organizational issue. Such publication is an effort to emphasize its importance and increase its readership.

Charles C. Smith, Jr., M.D., is the Chairman of this committee. Two of his sideline activities are the presidency of the Kentucky Medical Association and the practice of Internal Medicine.

Doctor Smith brings an incredible energy and an unusual, gifted, incisive intelligence to his job. His articulate report is concise and exciting and deserves the attention and study of every physician exposed to it. The committee deserves the real appreciation the KMA awards it for the job well done and continuing.

A brief overview of the alternate delivery systems burgeoning in Kentucky numbers only 16. Vince Staten, television critic of the Louisville Times, in describing the movie, "The Big Chill" and the new television series, "Hometown" ingenuously describes the progress of our society. "It is about friends from the idealistic 60's who get back together in the money-mad 80's."

We urge your work on and attention to this report.

A. Evan Overstreet, M.D.

Report of the Committee to Investigate Changing Trends in Medicine

The following article is the report of the Committee to Investigate Changing Trends in Medicine which was presented to the House of Delegates at their meeting in September. The KMA Board of Trustees and the House of Delegates considered the report of such importance in providing pertinent information that it was decided to highlight it in this issue. All reports and proceedings of the September House of Delegates meeting will be published in the December Journal of KMA.

The Committee To Investigate Changing Trends In Medicine held three meetings this year: November 14, 1984; February 20, and June 26, 1985.

The charge to the Committee is to study and report on evolving delivery payment mechanisms; to study and report on demographic trends affecting medical practice; to study and report on ethical questions regarding financial considerations versus quality of life; to investigate trends in cost containment activity, and to determine, to the extent feasible, the role of organized medicine in this changing environment.

The Committee has adopted the objective of developing information which will help both individual physicians and organized medicine plan for the future. As medical care in this country changes, it is increasingly important that organized medicine be able to anticipate and plan for those changes if we are to continue to serve as the advocate for our patients. Last year we noted that change in the past often has been equated with progress because virtually every change seemed to expand the physician's ability to provide effective care and create new demands for medical services. However, some current developments may not be beneficial to all patients and physicians.

HMO and PPO Development In Kentucky

In 1973, Congress passed the Health Maintenance Organization Act, which required employers with 25 or more employees to offer federally qualified HMOs as an alternative to their existing health insurance plan. At that time, health maintenance organizations were seen by the Nixon Administration as a "New Wave" of health delivery where the emphasis was put on preventing disease rather than treating acute diseases after their onset. In an era of government price controls, businesses looked upon HMOs as another federal mandate and were reluctant to do any more than absolutely necessary in order to encourage their employees to participate. The health maintenance organizations, at that time, were most often the closed-panel type, which meant that patients were limited in their choice of physician. Patients often had to travel fairly long distances to the facility where the HMO was housed. In addition, not many HMOs were in existence, and of those, very few were federally qualified. Thus, a large part of the population had no incentives to participate in an HMO nor, for the most part, any opportunity to do so.

In the past three years, HMOs and a derivative of that concept, the preferred provider organization, have enjoyed explosive growth throughout the nation. Long available on the West Coast, the HMO concept is now spreading throughout the country with a considerable amount of activity going on in the Midwest. Many of the federally qualified, nonprofit HMOs have now become investor-owned by major companies such as Humana, Hospital Corporation of America, National Medical Enterprises and American Medical International. Aetna, the largest insurance company provider of group health benefits, has undertaken a joint venture with Voluntary Hospitals of America to offer preferred provider arrangements. Metropolitan Life Insurance Company, according to a *Newsweek* article, has targeted at least $50 million for further alternate delivery system development while CIGNA, the nation's largest investor-owned operator of prepaid health plans, will spend $200 million to expand its business over the next two years. Nationally, it is estimated that 30 million people are

now enrolled in or have access to HMOs. Some estimate that if current growth rates continue, three-fourths of the United States population could be enrolled in alternate delivery systems by the mid-1990s.

The Kentucky General Assembly, like many other state legislatures, has been concerned over the rate of increase in health costs in Kentucky. Legislators have the choice of either enacting more stringent controls with regard to health care costs or letting the marketplace determine the level of cost increase through competition. In an effort to determine the level of competition in Kentucky, the Subcommittee on Health Cost of the Interim Joint Committee on Health and Welfare sponsored a survey of "pro-competitive" reimbursement reforms in the health care industry in December of 1984. The Trends Committee was very pleased to have Carol A. Scheele, an attorney and legislative analyst with the Legislative Research Commission, meet with us in June. Ms. Scheele had developed the Subcommittee report and willingly shared the results of her findings with us. The following information is derived from her study. For the purposes of this report, the term "alternate delivery system" will be used to denote HMOs and PPOs as opposed to fee-for-service reimbursement.

There is active alternate delivery system development occurring in Kentucky. In November, 1984, there were 19 health maintenance organizations and preferred provider organizations in existence or under active development. In 1982, only three HMOs existed in the state.

While the current enrollment in alternate delivery systems comprises a relatively small proportion of the private health insurance market in Kentucky, it is anticipated that the market share of these organizations will increase. At this point, it is difficult to determine the extent of growth that will occur in the short term.

Most development of alternate delivery systems has taken place in Jefferson and Fayette Counties and their bordering counties. However, there is a good deal of activity now occurring in northern Kentucky and in those areas of the state that border large cities in Tennessee, Ohio and Indiana.

A larger number of businesses now find alternate delivery systems attractive and are offering them to their employees.

While a number of physicians have contracted with alternate delivery systems, it is difficult to estimate how many are involved. A large proportion of HMO physicians are consulting specialists. In addition, most systems do not require physicians to sign up with only one organization so that one physician may be affiliated with several alternate systems, resulting in a perception of widespread participation.

Physician reimbursement mechanisms vary widely, although most plans either obtain discounts, place physicians on a capitation schedule, or have fixed payment schedules. The majority of HMOs and PPOs place physicians at risk for over-utilization of hospital services. However, most report that physicians are not currently penalized for over-utilization of hospital services, but note that they expect to implement penalties in the near future.

Hospital reimbursement varies widely with most alternate delivery systems receiving some sort of discount from at least some hospitals.

Nearly all alternate delivery systems require deductibles or co-payment by consumers, and almost every plan penalizes consumers for out-of-plan use.

A brief overview of the various organizations in existence was given to the Committee by Ms. Scheele and is summarized as follows.

Central Health Services, Inc. of Lexington is affiliated with Central Baptist Hospital. It began as a preferred provider organization with both physicians and hospitals and is a private for-profit corporation owned by Central Baptist Hospital and individual shareholders. It is governed by a Board of Directors comprised of members of the corporation, community representatives and hospital representatives. Eighty-five physicians and one hospital are reported to have agreed to participate. Geographic scope is largely Fayette County and its surrounding counties.

ChoiceCare is an IPA model health maintenance organization which is a nonprofit organization owned by physicians and governed by a physician Board of Directors. It is very actively seeking business in northern Kentucky. Currently, 88 physicians and three hospitals have agreed to participate. Its geographic scope is Kenton, Boone, Campbell, Grant and Pendleton Counties. It was reported that this organization is actively seeking to enroll Medicare patients who are now eligible for participation in HMOs.

HealthAmerica Corporation of Kentucky is a wholly owned subsidiary of HealthAmerica of Nashville, an investor-owned corporation comprised of a number of HMOs which were formerly nonprofit, federally qualified organizations. HealthAmerica is the second largest investor-owned HMO in the U.S. HealthAmerica Cor-

poration of Kentucky operates in Jefferson County and surrounding areas. Because HealthAmerica is a federally qualified HMO, its rates are based on community experience; thus, it tends to have higher premiums than its competitors.

HealthAmerica Primary Care Network is also owned and governed by HealthAmerica Corporation of Kentucky. It is a primary care network model HMO and expects to become operational in January 1986. This was developed as an alternative to the staff model currently being used in Louisville and Lexington in an effort to try to entice employees who do not want to give up their current physician.

Humana Health Plan, Inc., doing business as Humana Care Plus, is now operational. The Humana plan is based on the incentive to businesses that if 80% of their employees join and use participating Humana Hospitals 75% of the time, Humana will guarantee that annual premiums for Humana Care Plus will rise no more than the Consumer Price Index. However, if those percentage factors for utilization are not met, reportedly, the rate increase is then based on the actual experience of the company, which is usually significantly higher. The concept is built around Humana Hospital utilization and is currently actively marketed in Jefferson, Bullitt, Oldham, Shelby, Hardin, Fayette and contiguous areas in Kentucky and Indiana.

HMO Kentucky, Inc. is a wholly owned subsidiary of Kentucky Blue Cross and Blue Shield and is governed by Kentucky Blue Cross and Blue Shield. As of the time the LRC report was developed, the program was not operational.

Independence Health Plan of Kentucky is a private for-profit corporation owned in the majority by the Lexington Clinic and in the minority by Independence Health Plan, a public for-profit entity. The program is now being marketed in Fayette, Franklin, Shelby and Madison Counties. Ninety-plus physicians in Lexington have agreed to participate. The plan utilizes primary care physicians in the patient's hometown with referral to Lexington Clinic for specialty care.

Maxicare Health of Ohio is an independent practice association model owned and governed by Maxicare Health Plans, Inc. (a public for-profit national HMO based in California), Maxicare Ohio, Inc. and Louis Krainler, Inc., (a multi-specialty group practice in Cincinnati). It is operational in three counties in northern Kentucky, four counties in southwest Ohio and one county in Indiana.

Medi-Plan, Inc. is a primary care network model, for-profit corporation owned by primary care physicians and governed by a Board of Directors. It plans to offer a PPO, traditional insurance coverage and an HMO, which is expected to be operational in early September. One hundred physicians and several hospitals have agreed to participate, but marketing has not yet begun. The plan is statewide in scope.

Mountain Trails Health Plan, Inc. in Harlan, Kentucky, is an IPA model HMO, a private, nonprofit corporation governed by a 15-member Board of Directors comprised of business and professional persons. It was reported that this plan is more of an insurance company than an HMO, and it operates basically in eastern Kentucky.

Option 2000 is a hospital-only PPO, wholly owned and governed by Blue Cross and Blue Shield of Kentucky. While the program is operational, it is not being aggressively marketed and is available basically only in the Louisville area.

Peak Health Plan is based in Cincinnati, Ohio, and is a primary care network model HMO, owned and governed by Peak Health Care, Inc., a Colorado for-profit corporation. It has 376 physicians and eight hospitals (three in Kentucky and five in Ohio), and is operating in the northern Kentucky, Cincinnati, and Dayton, Ohio, areas, according to the report.

The Physicians Alliance For Medical Excellence, Inc. was the first preferred provider organization in Kentucky. It began as a physician-only PPO and is a nonprofit corporation governed by a 15-member Board of Directors composed of physicians. It formed Commonwealth Health Plan, which is an HMO, and has some affiliation with Surgical Care Affiliates and Hospital Corporation of America in Fayette County and surrounding areas.

Physicians Health Plan of Kentucky is an independent practice association model HMO developed by the Jefferson County Medical Society but now governed by private practice physicians under a management arrangement with Charter Med, Inc. Physician recruitment is now in process, as are hospital negotiations, but marketing has not been initiated. Approximately 500 physicians have signed on with the program, as have approximately 600 patients. The program will operate in Jefferson, Oldham, Shelby, and Bullitt Counties in Kentucky and Floyd, Clark, and Harrison Counties in Indiana.

Preferred Health Plan, Inc. in Louisville is a private, for-profit independent corporation governed by a Board of Directors comprised of physicians, hospital representatives and community participants. It is a PPO utilizing both hospitals and physicians and was developed in connection with the Voluntary Hospital Association, a group of not-for-profit hospitals. One hundred ninety-seven physicians and six hospitals are affiliated with the plan. Approximately 1,300 persons have been enrolled in Louisville and surrounding counties. It was reported that Louisville is a national test site for the development of the hospital-initiated PPO (HIPPO).

The University of Kentucky PPO is a physician and hospital, nonprofit organization developed by the University Benefits Oversight Committee in conjunction with Blue Cross and Blue Shield of Kentucky. University of Kentucky medical staff physicians and the UK Medical Center Hospital offer services to UK employees, Blue Cross and Blue Shield covered groups and state employees. Marketing is in progress with the scope of the program being central, eastern, and southeastern Kentucky.

Ms. Scheele also developed a set of criteria that physicians might want to utilize in evaluating various delivery systems for future participation. The Committee felt these were very well done, and they are attached to the end of this report as a separate item. (Editor's note: Ms. Scheele's article on Alternate Delivery Systems was published in the September *Journal of KMA*, pg. 575, and is not printed here as indicated.

The Physician's Image

The public's perception of the profession is a very real issue today. There is a growing feeling that some action should be taken to enhance the profession's image. The question is, what activities would be most effective? The Committee felt that expensive, statewide advertising campaigns may well have little or no measurable positive results. We agreed that the most effective means of changing the public's opinion of physicians is through the actions of individuals and of KMA as an organization. KMA is undertaking a number of projects which we feel will have positive results. These include, but are not limited to, a project for physicians to go into elementary and secondary schools to discuss the impact of lifestyles on health and to promote wellness and self-esteem; the Kentucky Physicians Care Program for indigent patients; and a campaign to circulate pictures of missing children to physicians' offices to be posted where office personnel and patients can see them.

At the national level, the American Medical Association House of Delegates has been concerned with the issue of the physician's image, with the result being that the AMA is undertaking a multi-million dollar project to present the profession to the public in a more positive fashion. Louisville has been selected as a national test site to evaluate the effectiveness of some of the programs now being considered. A one-half hour film of practitioners in their daily routines will be aired in September. A follow-up survey will be done of a randomly selected segment of the public to measure the impact of this type of media campaign.

The AMA has been surveying the public over a number of years in an effort to get some sense of its perception of physicians in general.

In 1984, the AMA attempted to determine how much of a gap existed between the patient's perception of his or her own physician versus the profession as a whole. While the patient's image of his own physician was sharply better than that of the general physician population, the survey found that the image gap was greatest in areas where the public's general image of the profession was most negative: fees, incomes and cost effectiveness; the M.D./patient interaction; and public faith in physicians. The most positive image of the profession, knowledge of medicine, showed a small image gap of only 13 points. Thus, the most negative perceptions are those least related to personal experience and therefore most related to secondary sources of information and hearsay. The task, it seems, is to develop public relations efforts that concentrate on positive personal experience on a more general basis. The AMA is doing additional research in this area, and hopefully some of these concerns will be addressed by the AMA image-enhancement campaign mentioned above.

Marketing/Advertising

All advertising is a form of marketing, but all marketing does not include advertising. That is a subtle distinction, yet one that many physicians tend to overlook, and one that is most important in today's competitive environment.

Richard Wright, M.D., Louisville, a member of our Committee, had undertaken a study with regard to physicians' attitudes on advertising and shared his findings with us. In the medical profession, the adverse effects of advertising stem from the early ads for tonics, cure-

alls and other examples of hucksterism. That led to a somewhat strict and specific code of ethics with regard to medical advertising. In 1975, the Federal Trade Commission investigated the AMA regarding the AMA Judicial Council's position on advertising. The AMA code of ethics does not proscribe information being made available on a physician's training, limits of practice or other pertinent information, but does indicate that solicitation of patients through unsubstantiated claims is unethical. Other ethical considerations from a medical point of view are that medicine is not a trade and does not involve merchandise; compassion is essential for the physician/patient relationship; consumer understanding is limited and misinformation and unethical practices can happen.

Doctor Wright's survey of physicians in Kentucky resulted in a 40.55% response, indicating there was a good bit of interest in this topic. However, only 1% of those responding advertised or planned to advertise at the time the survey was done. The survey indicated that there was great concern among Kentucky physicians that the image of the profession would suffer if advertising became widely used.

In a survey done by the AMA in 1983, 17% of those physicians responding to the survey indicated that they felt it appropriate to list fees for a selected number of standard well-defined procedures for publication in newspapers, radio or television. This positive response represents an increase from 11% in 1982, and only 8% in 1978. Support also seemed to increase for listing fees in local directories and in the physician's office. However, nationally, the overwhelming proportion of physicians continue to reject listing fees in the media, and a solid majority do not favor the local area directory concept. Younger physicians were more than twice as likely as older physicians to favor listing fees on radio/television. However, four out of five younger physicians did not support fee listing in the media, according to the AMA study.

A survey of public opinion on the same issue, however, brings far different results. In a study done by Miller and Waller in Arizona, 68% of the consumers responding felt that it was proper for physicians to advertise, and that advertising would not lower their dignity or credibility. The majority of consumers in this study felt that the inclusion of services and fees in advertising would not reduce a physician's image, and about one-half of the sample indicated the need for price information. More older consumers felt that advertising would help them make more intelligent choices among physicians than did younger consumers. With regard to advertising media, over 70% felt that a professional magazine or newspaper was the most appropriate medium for physician advertising. Consumers thus seem to have a more favorable attitude toward advertising by physicians. Previous research has also shown that many professionals are concerned about marketing and feel that their image, dignity and credibility would be diminished as a result. The results of the Arizona study indicate that these fears may be exaggerated.

Similarly, a survey of the public done for the AMA in 1983 indicated that the public believed physician advertising is ethical and proper; will increase competition for patients; will not reduce physician professionalism; will help people choose a physician; will not affect existing patients' evaluations of the physician; and is not a sign of an unsuccessful practice. In a more negative sense, however, the public tended to feel that advertising will not be done by "good doctors"; will not reduce fees; will not promote better physician/patient relations; and will not be truthful and honest. While a majority disagreed, one-third of the public indicated they would think less of their physician if he/she advertised, and more than one-third continued to believe that physician advertising is unethical and improper.

As mentioned above, advertising is one way of marketing a physician's skills and availability. A number of other marketing areas were discussed. The Committee feels that implementation of some marketing techniques by physicians would certainly enhance not only the individual's practice but may go a long way towards enhancing the image of the profession as a whole. A simple definition of marketing in this context is treating patients the same way you would like to be treated were you in their place. In that regard, the Committee examined a marketing guide developed by the Pennsylvania Medical Society which gives an excellent overview of various activities that a physician may want to practice. The Committee felt it to be a worthwhile item and asked the Board of Trustees to approve the purchase of a number of these guides to be made available to members upon request at no charge. The guides have been ordered and should be available this fall.

One self-assessment tool that the Committee felt to be excellent was a patient satisfaction survey. These surveys ask your patient about their feelings regarding the medical care they received from you; the inconvenience in getting to the practice location; the difficulty in reaching a physician by telephone; the attitude of

the office staff; the caring attitude exhibited by the physician and his or her staff; and other pertinent information. Each of our members had his or her office staff pass out these forms to 25 successive patients. The cards were returned to KMA and the overall results recorded. Each individual physician member could also obtain the results of his specific experience. The Committee found the survey format to be excellent and allowed patients to anonymously voice their opinion of the physician's practice. As a result, the Committee suggested that the survey format be duplicated in the "Communicator" for any member who wished to implement such a program in his/her individual office.

Enhancing Interprofessional Relationships

Many hospitals are finding themselves under severe financial restraints because of the growth of alternate delivery systems. The implementation of payment by diagnosis related groups for hospital services has resulted in fewer patients and shorter lengths of stay which have, in turn, resulted in a number of nurses being layed off or having their hours curtailed. In addition, the physician/nurse relationship in the hospital setting is sometimes strained. There is a growing movement nationally for nurses to become more independent in their careers, and legislation has been introduced for the past several Kentucky General Assemblies to allow nurses to practice medicine.

While some nursing groups have taken the lead in attempting to broaden the Nurse Practice Act, they may not be representative of the majority of nurses practicing in the state. The Committee felt that an enhancement of relations between physicians and nurses would be valuable.

It was suggested that the KMA Medical Staff Section be asked to discuss activities that would enhance and improve the interprofessional attitudes between physicians and nurses. Including nurses in hospital/medical staff sponsored CME programs might be useful. Inviting the nursing profession to participate in some of KMA's membership benefits such as the Annual Meeting, other CME programs, insurance plans offered through the Agency, and Credit Union membership eligibility were also discussed.

Survey of Young Physicians

This year, KMA, in consultation with the AMA Department of Survey Design and Analysis, designed a survey of young physicians (those under 40 years old) in Kentucky. The purposes of the survey were to collect opinions of both members and nonmembers of the Kentucky Medical Association's objectives and services, to ascertain reasons for membership or nonmembership in KMA, and to assess the impact of several trends on the practice of medicine in Kentucky. Eight hundred eighty-one surveys were returned for a response rate of nearly 40%. These are some of the more important findings of the survey:

Of the group surveyed, nearly three-fourths of both men and women physicians belong to specialty societies, but men physicians are more likely than women physicians to belong to the AMA, KMA or county societies. Clearly, KMA must find some way to bring more female physicians into membership if it is to truly represent all physicians. Both our Committee and the Membership Committee continue to try to find ways to increase membership among our female colleagues.

Nearly all respondents rated promoting better public understanding of medicine as important. Guiding the legislative process was rated as very important by 86.7% of the members and by 75% of the nonmembers. Practice management, marketing, continuing education and social and professional contact were rated somewhat more highly by residents and women physicians.

Representation of physicians and the profession was clearly the most important reason for membership, while nonmembers assigned a somewhat greater importance to the tangible benefits offered by KMA. Likewise, tangible Association benefits provided a greater incentive for membership for residents than for other physicians. Women physicians indicated that important membership incentives were enhancement of referral patterns and a desire for specific Association benefits.

All respondents indicated that representation of physicians and liaison with the public media by KMA were extremely important. The *Journal* of KMA and the Annual Meeting were indicated as important by members more often than by nonmembers, possibly because nonmembers may tend not to attend the Annual Meeting.

In regard to health care issues, members indicated competition, government regulation and alternate delivery systems to be serious problems more often than nonmembers, while both groups noted that malpractice insurance costs and patients' inability to pay were extremely important issues. Residents are more concerned than anyone about liability insurance cost. Men were more concerned about government regulation and women somewhat more concerned about patients' inability to pay.

The survey results are extensive and will provide KMA with a roadmap for the future to help us provide the types of benefits, services and representation which are important to our members.

Health care in the United States continues to be an emotional and political issue of great importance. In the past few decades, hospital and physician expense protection, coupled with the creation of Medicare and Medicaid, provided substantial health insurance to millions of people including the elderly and the poor. That resulted in increased demand for medical care, stabilized payments for services, and promoted greater equality of access while posing no threat to the traditional organization and delivery of care.

Widespread insurance contributed to an explosive increase in health care costs through the 60s and 70s and early part of the 80s. However, the slow growth of the U.S. economy in the late 70s and early 80s was not accompanied by an equivalent slowing of health spending. Many fear that health care will continue to consume more of the gross national product, and that concern is shared by both government and the private sector.

Third-party involvement has tended to insulate patients from the pain of health care expenditures to the point that the patient will want, and the responsive physician will recommend, care even when the cost to society exceeds the benefit to the patient. Questions are now being raised as to whether the benefits to patients from additional spending are equal to the cost to society of providing the additional care.

The mood of the country is more materialistic and less egalitarian, with the result that the financial squeeze is being put precisely on those least able to deal with it: the poor, the very sick, the very old and the very young. Physicians, as advocates for our patients, must take every precaution to see that the current preoccupation with cost does not result in other problems with regard to access. Pressures to be more financially prudent in the provision of care may well force physicians to make decisions that are contrary to the best interest of individual patients, even though they may make a great deal of sense from society's viewpoint as a whole.

As competition expands, there may be less incentive for the medical community to share findings which once were readily and freely shared by peers. Questions are already arising concerning scientific findings being made available by for-profit entities which fund certain experimentation. Will revolutionary ideas and breakthroughs in medical care be jealously guarded in the same manner as Ford might patent a breakthrough in fuel efficient carburetors? Victor R. Fuchs of Stanford University, writing in a recent *Wall Street Journal* editorial, states:

> Every revolution carries within it the seeds of its own destruction through excessive pursuit of one goal. The present revolution in health care financing is no exception. The problems it addresses are palpable: over-utilization of medical services; inadequate evaluation of new technologies; inefficient and inequitable cross-subsidization; and excess supplies of specialists and hospital beds. But the problems it may create are also significant: inadequate insurance coverage for millions; erosion of professional ethics as an instrument of control; loss of trust between physicians and patients; and a decline in medical research. The new challenge is to capture and preserve the benefits of the revolution while minimizing its costs.

Whether or not the growth and influence of for-profit entities such as Humana and Hospital Corporation of America will continue unabated to the point where three or four corporations will control the practice of medicine in this country, as some predict, remains to be seen. It is not enough today to keep up on the latest in medical developments. Today's practitioner must also be aware of the techniques necessary to continue to retain the patients he or she now sees in a time of intense competition.

The unity and will of the profession is being tested as never before, and if we are to truly represent our patients, we must not lose sight of those principles which have made medical care in the United States second to none.

Charles C. Smith, Jr., M.D.
Chairman

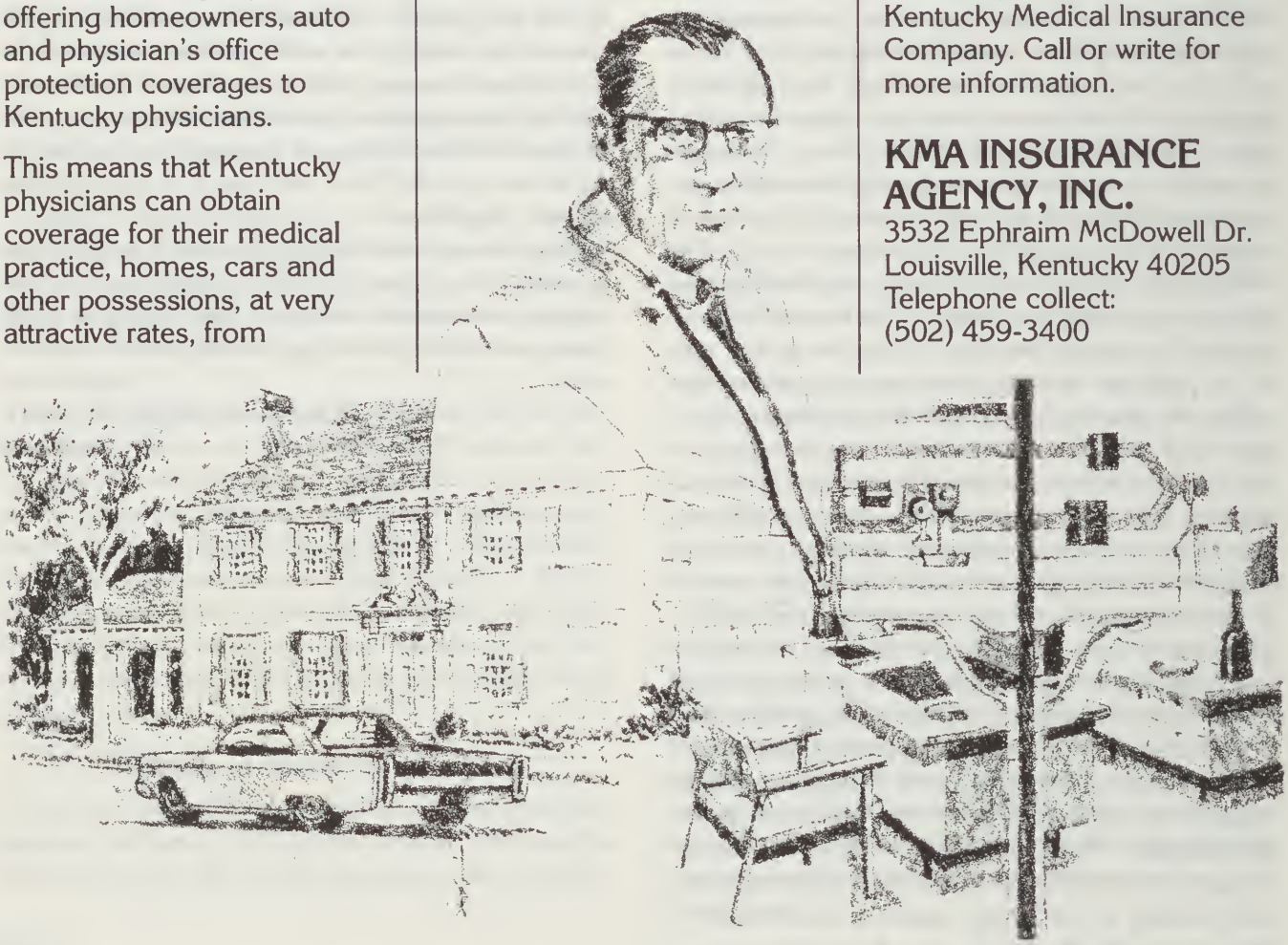
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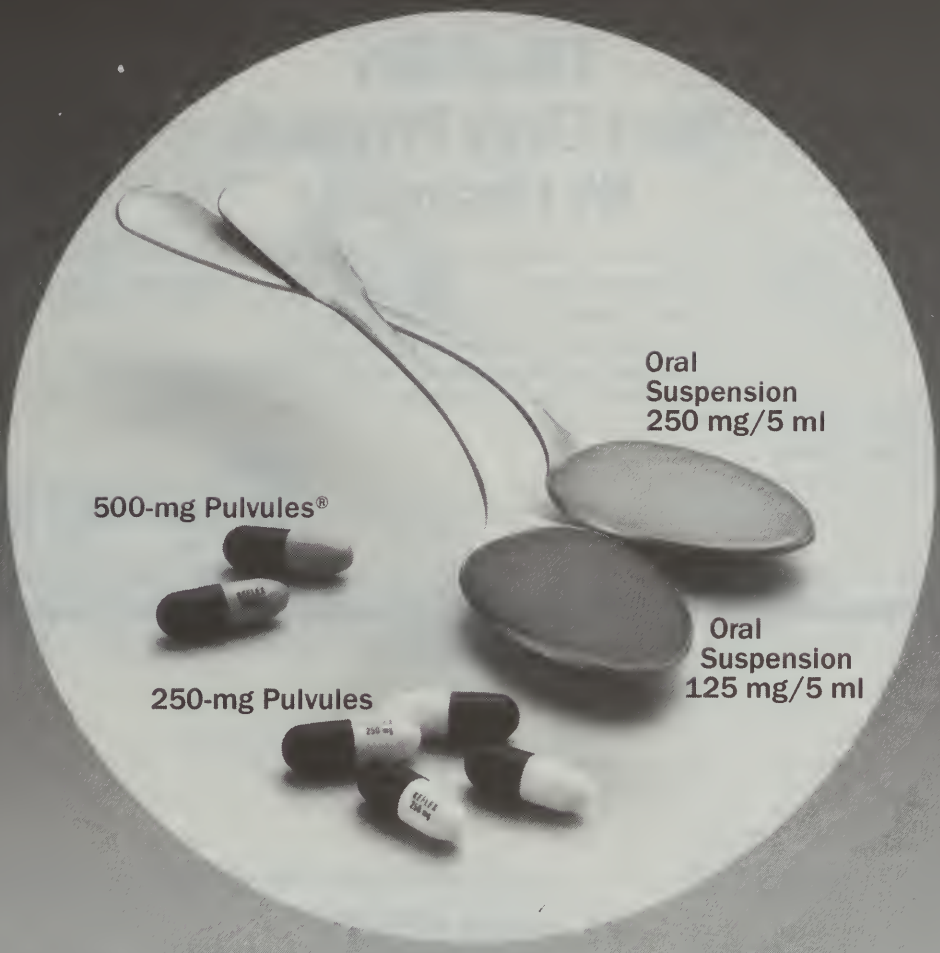
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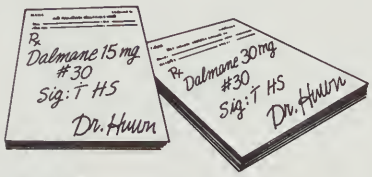
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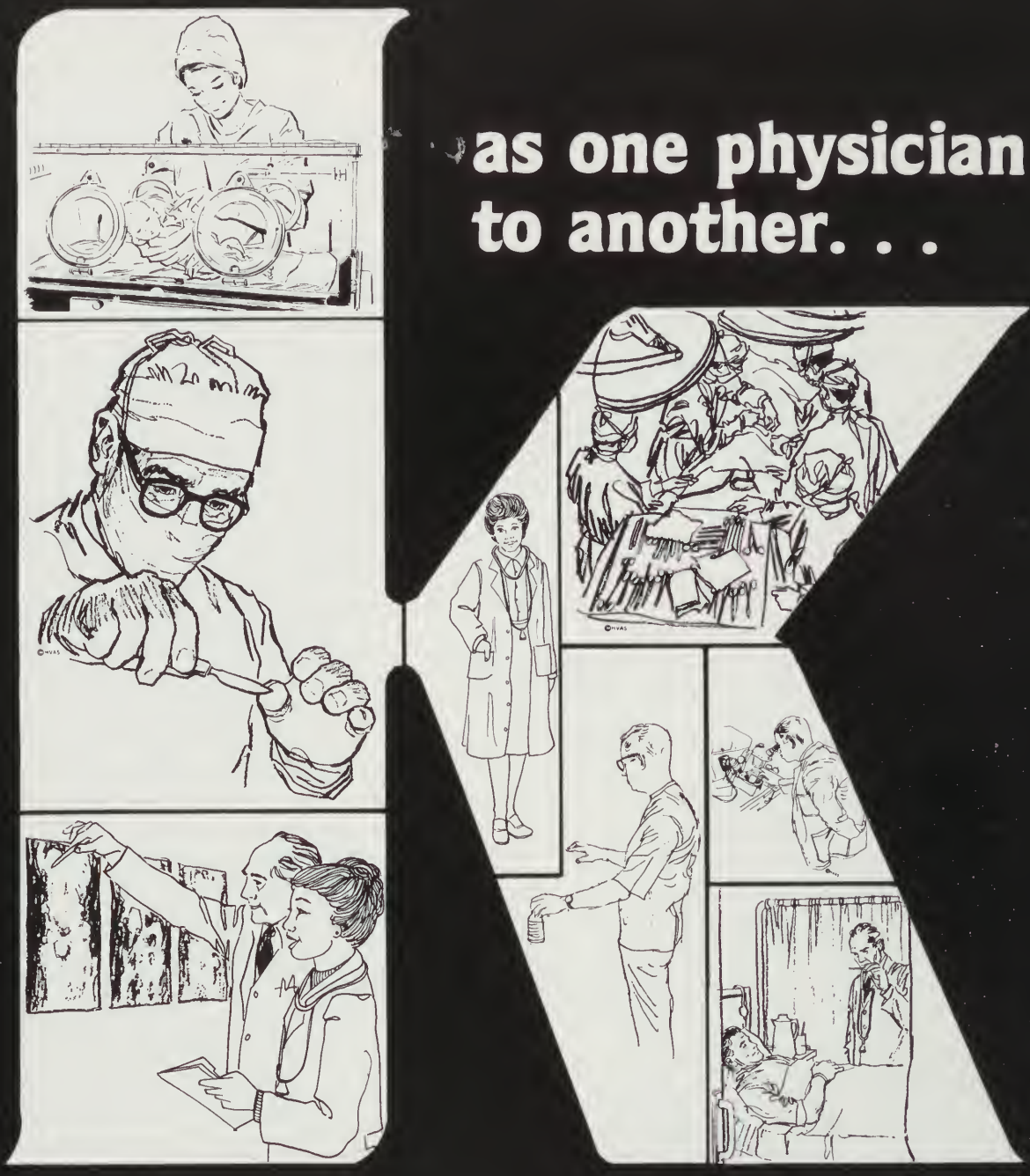
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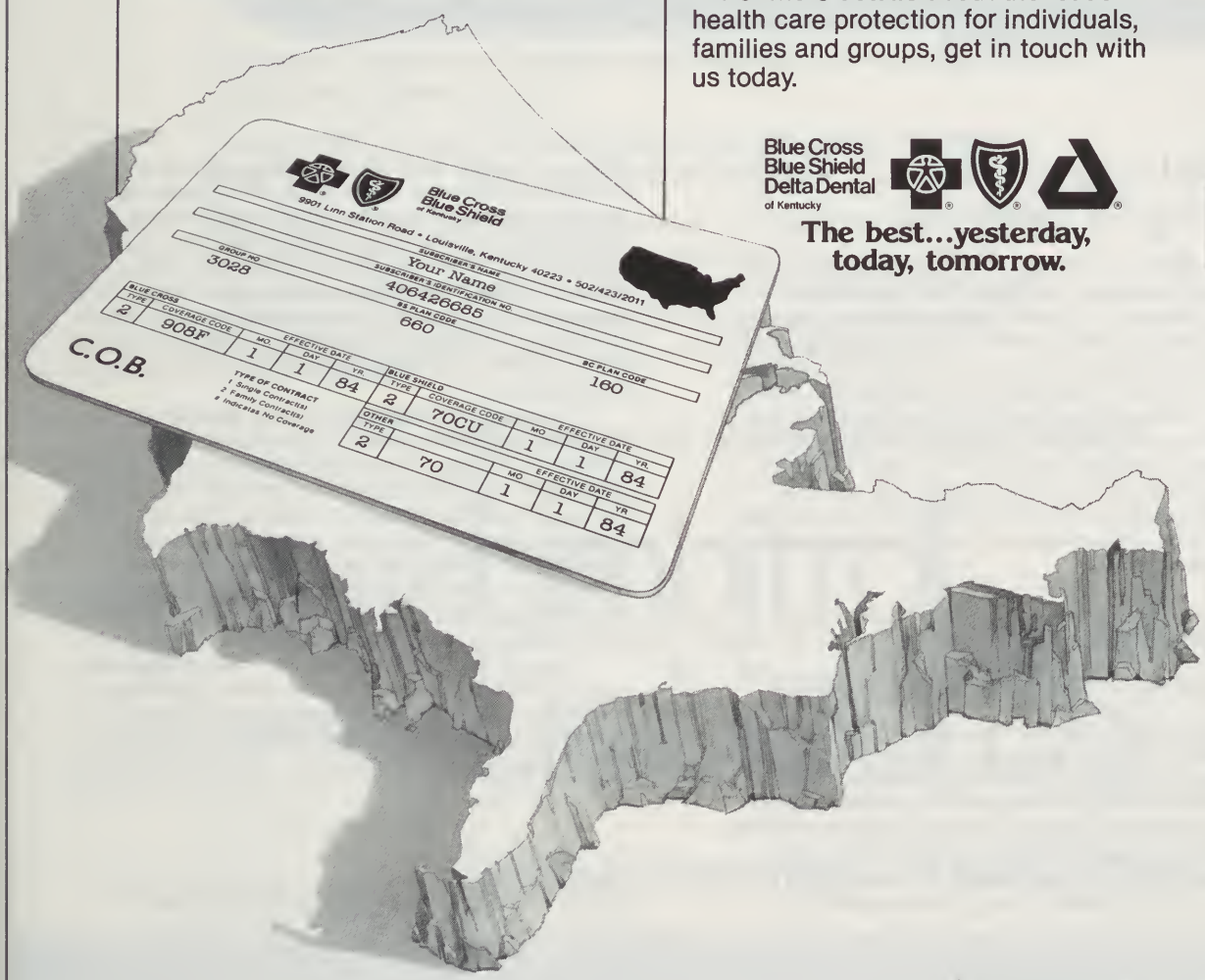
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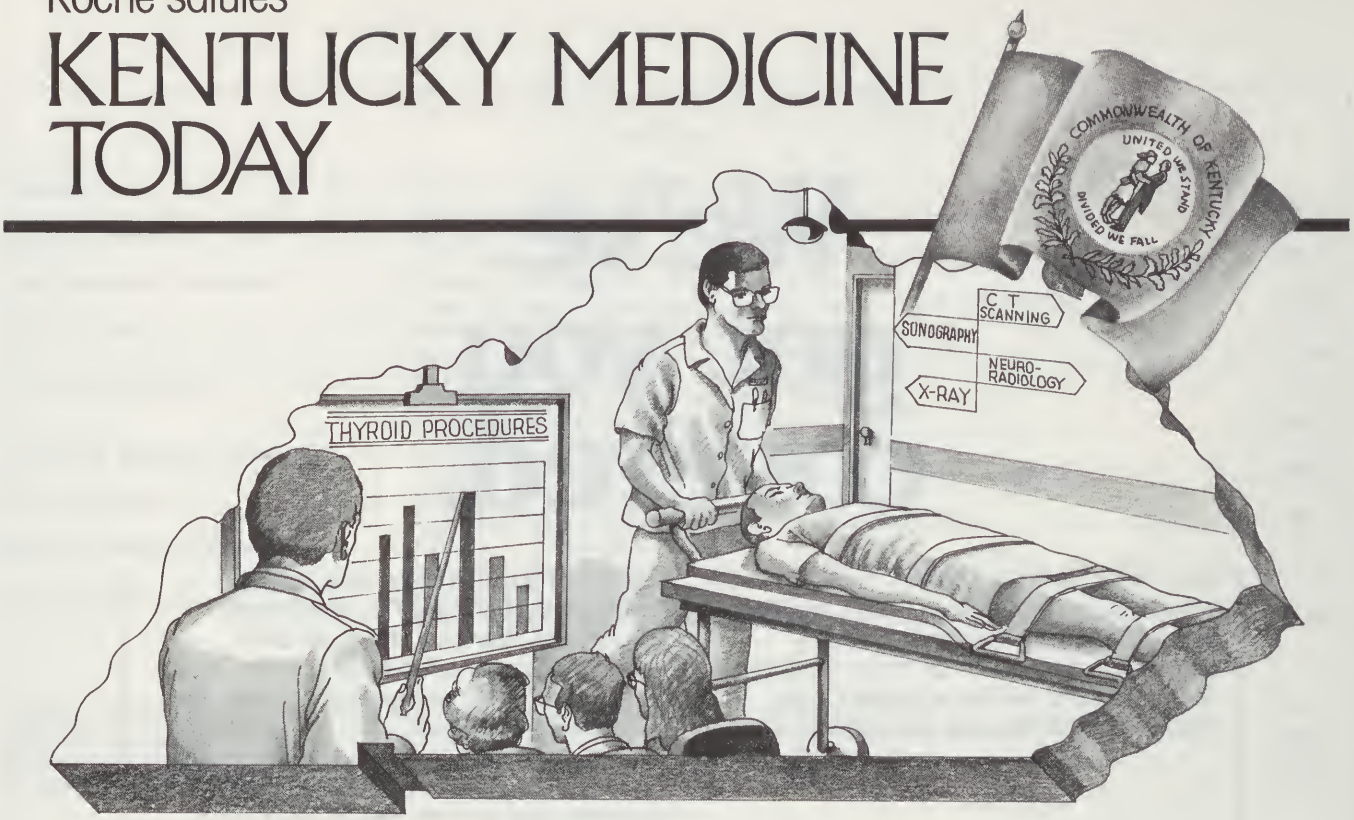
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KENTUCKY MEDICINE TODAY



Thyroid surgery subject of study covering 24 years

In a dedicated effort to assess early and late complications after thyroid operations, members of the Department of Surgery, University of Louisville School of Medicine, recently analyzed records of 407 operative procedures going back to 1958. Overall, their findings were reassuringly positive. A mortality rate of 0.7% was found and attributed to coexisting disease, advanced patient age and delayed treatment. Permanent hypoparathyroidism, probably related to disrupted blood supply, appeared in only 0.9% of cases.[1] This and other statistically significant data indicate that operative procedures on the thyroid carry an acceptably low morbidity and mortality—findings that are a Kentucky contribution to medical science.

See-through stretcher eliminates dangerous transfers

A complete radiographic evaluation of a spinal fracture usually necessitates numerous transfers of the patient between the stretcher and various x-ray and computed tomography tables. Doctors at Audubon Hospital in Louisville reasoned that these potentially dangerous transfers could be eliminated if they had a radiolucent stretcher. So they set to work and developed exactly what was needed: a stretcher strong enough so that the patient's spine is well supported and radiolucent enough so as not to degrade radiographic images. The patient can remain in the same position during the entire radiographic examination of a spinal fracture, including plain x-rays and computed tomographic and myelographic studies.[2] Further, the team designed a traction-device attachment making it possible to apply traction during myelographic examination or to accomplish a closed reduction of a cervical fracture. By obviating the need for accessory traction devices, they have produced a self-contained unit for such procedures.

The strength and radiolucency of the stretcher are assured by its construction with newly developed organic materials—a rigid core of polyimide foam and a carbon fiber-epoxy resin (or graphite-epoxy) material for the outer skins of the board. Four nylon straps with plastic buckles are used to secure the patient to the stretcher across the shins, thighs, hips and torso. Plastic handles attached to these straps on each side are used to lift the stretcher. Eight polyurethane stops on the undersurface hug the edge of the CT cradle to prevent lateral and vertical movement during scanning.

This ingenious self-contained unit makes things easier for all at Audubon, including orderlies, nurses, physicians and, especially, the patients, who now are taken off the stretcher only once—when they are placed on an operating table, a bed or a fracture frame.

References: 1. Max MH, Scherm M, Bland KI: *South Med J 76*:977-980, Aug 1983. **2.** Jelsma RK, *et al*: *Surg Neurol 22*:167-172, Aug 1984.

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Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
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Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
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Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
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PRESIDENT'S PAGE



Reflections on Annual Meeting

In this issue of the *Journal* you will find a summary of actions of the 1985 KMA House of Delegates. I have listed what I consider the important highlights of that meeting and how your officers and trustees plan to implement the decisions of the House of Delegates. You can be sure that there was immediate reaction to your concerns. An Officer-Staff Conference was held the week following the convention and the Executive Committee met on 7 November. By the time you receive this issue of the *Journal*, the entire Board of Trustees will have met. There is a keen awareness by your elected representatives of the need to respond to your concerns.

The continuation of the Kentucky Physicans Care—Health Care Access was in my opinion a positive reaction by the House of Delegates. A sincere desire on the part of the vast majority of the Kentucky physicians to make sure all of our citizens receive necessary medical care has left a very positive impression upon the public and government officials. I urge each of you to join in this program and let it be known that you are willing to participate.

Perhaps the most significant action of the House relates to the medical malpractice affordability crisis in both the state and the nation. These proposals were divided into five sections.

1. Tort Reform
   A. That KMA petition the Kentucky Supreme Court regarding the enactment of rules addressing the modification or elimination of the Collateral Source Rule.

This petition is now being written by KMA legal counsel and will be presented to the Kentucky Supreme Court. This may have merit in that the Ad Damnum Clause, passed by the Kentucky General Assembly in 1976 and later declared unconstitutional, was by court decree made a part of the Kentucky Rules of Civil Procedure. The Ad Damnum Clause prohibits the statement of the amount of damages alleged in a malpractice suit. Elimination of the Collateral Source Rule would allow discovery of other benefits the plaintiff may have received to be presented in evidence during the trial procedure. It has not been determined how much this will reduce medical malpractice premiums.

   B. That KMA petition the Kentucky Supreme Court regarding the enactment of rules addressing establishment of a mechanism for the periodic payment of judgments awarded in medical liability cases.

This petition is also being prepared, but it is only fair to point out that "periodic payments" may run afoul of Kentucky's Constitution. I believe periodic payments would better serve the plaintiff and family and would be a much better method by which the malpractice insurance carrier could estimate future premiums. It would in no way alter the total damages awarded.

   C. That the KMA push for legislative and Constitutional changes concerning limitation of awards and adjustment of the Statute of Limitations as it pertains to minors.

The limitation of awards is what this crisis is about. Your officers and staff are trying to develop acceptable guidelines for award limits. This has been done in several states and is being appealed through other court systems at the present time. We have an excellent Statute of Limitations for adults in Kentucky, but the specialty hurting the most in malpractice premium increases and litigation is the obstetricians. Our lengthy Statute of Limitations for miniors creates an exposure in which no actuarial can determine the amount of reserves needed to settle future claims. While we want to curtail the length of exposure, we do not wish to compromise the present one year Statute which applies to adults.

2. Task Force
   A. That the KMA Board of Trustees, at the appropriate time, request that the Governor appoint a special task force to analyze the medical liability situation in Kentucky for the purpose of proposing solutions to the problem.

Physicians who have been involved with any political problem realize the frustration of trying to seek legislative relief even with support from the Governor and State Legislators. At the same time, we are aware that if we are to accomplish our aims, we must talk with the trial lawyers and others who oppose our views. The key phrase in the above statement is "at the appropriate time." We do not feel that now is the time, so soon before the General Assembly, and the "Task Force" may function better after the Legislature ends. Another consideration we must be aware of is that a new Governor will be in office at the time of the 1988 General Assembly.

3. Mandatory CME
   A. The issue of mandatory CME as a

condition for relicensure be referred back to the KMA Committee on Continuing Medical Education for its recommendation, to be presented to the 1986 House of Delegates, with details of the operation and structure of a tenative CME program for the physicians of Kentucky.

On CME I agree that there is no concrete evidence of improved performance by physicians who attend such courses. However, there are studies that show physicians frequently sued and those in high risk categories do have a better track record after attending risk management courses. In addition, there is a real burden on the physician who must testify in Frankfort or Washington that mandatory CME should not be required for doctors. Lawyers, nurses, physician assistants, and other ancillary medical care personnel now require continuing education. This proposal will be brought back to the House of Delegates next year. For our future legislative activities, I would hope favorable consideration is given.

4. Internal Activities
   A. That KMA encourage Kentucky hospitals to develop committees on risk management and cost control which are made up of members of the hospital medical staff.

This is being accomplished somewhat through Quality Assurance Committees of the medical staff. However, there is a distinct need to expand the other risk management committees to include the medical staff.

   B. That KMA endorse and encourage participation in the Kentucky Medical Insurance Company's programs on claims awareness and prevention.

KMIC has a brochure and video presentation that is well prepared and would be worth every Kentucky physician viewing. Suits can be avoided with more attention to details and patient rapport.

   C. That KMA study the issue of arbitration of medical liability cases.

Arbitration and its ramifications may be a partial solution to the problem. However, this needs many more hours of consideration by everyone before being adopted as a solution. This has been referred to the KMA-KMIC Ad Hoc Committee on Professional Liability Insurance for further consideration.

5. External Activities.
   A. That KMA leadership strengthen its communication with allied groups, representatives of local, municipal, and state governments, the business community, and others in order to foster a better understanding of the liability problem and a means toward its solution.
   B. That KMA participate in public forums, such as civic clubs and chambers of commerce, and use the media to better educate the public about liability problems and the effects they have on the availability and cost of health care.
   C. The KMA membership capitalize on opportunities and use available resources, such as posters and pamphlets, to educate patients about the effects of liability insurance costs.
   D. The KMA study and where desirable support AMA efforts to achieve national legislation affecting liability issues.

Your leaderhsip is trying to strengthen relationships with allied groups and has been meeting with the Kentucky Hospital Association leaders for months on malpractice and other mutual problems. Testimony is being given at every available opportunity before state legislative committees. I hope that a sample presentation can be developed in the next few weeks which would be available to any physician in the state who may have or may develop an opportunity to speak to local business, civic, or management groups. Also, if lasting reform through Constitutional change is to be achieved, patient education will be paramount. We are in the process of developing patient information pamphlets on the cost of malpractice insurance and the profession's goals to reduce the added burden.

I personally believe that physicians would develop broad public support if we agreed to reduce our charges for medical care in direct proportion to the reduction achieved in our insurance premium.

While KMA is working on the state level, activities are also occurring in Washington to relieve the malpractice crisis. The model AMA legislation introduced in Congress may be of benefit, but we have concern that it would not meet Kentucky's Constitutional restraints.

One other aspect of the malpractice problem considered by the KMA House of Delegates is that KMA activities include resident physicians in our training programs.

Hopefully, KMA can embark on a prolonged program for relief of the malpractice crisis. It will require a sustained effort, and we will meet temporary set-backs. However, we will not be deterred in our efforts.

Perhaps, a happy note should be inserted at the end of this page. I do wish for you, your families, your patients, and the entire health care family a Happy Holiday Season.

Wally O. Montgomery, M.D.
KMA President


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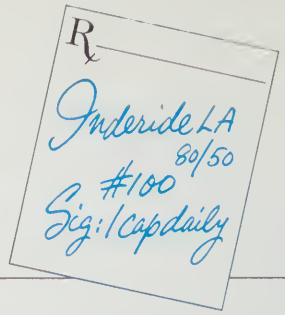
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IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely; or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

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IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis; erythematous rash; fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions; psoriasiform rashes; dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache, xanthopsia.

Hematologic: Leukopenia, agranulocytosis; thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash; urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

Other: Hyperglycemia; glycosuria; hyperuricemia, muscle spasm; weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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Infusion Chemotherapy and Radiation Therapy:

A New Approach with Encouraging Results in Anal, Esophageal, Head and Neck and Cervical Carcinoma

LAWRENCE C. MAGUIRE, M.D., OSCAR A. MENDIONDO, M.D., WILLIAM D. MEDINA, M.D.
JOHN D. CRONIN, M.D., WILLIAM R. MEEKER, JR., M.D. AND ANITA CORNETT

Using constant infusion chemotherapy and simultaneous radiation therapy, improved responses are being observed, often without surgery, even in advanced stages of squamous cell carcinoma of the anus, esophagus, head and neck and cervix. The toxicities of this treatment are very tolerable with excellent patient tolerance and preservation of normal function. Our experience and that of other groups employing this new treatment approach are reviewed.

There continue to be all too many malignancies for which effective therapy is limited. Recently, the use of concomitant continuous infusion chemotherapy and simultaneous radiation therapy has been found to be curative without surgery in squamous cell anal carcinoma and also to be effective in such previously hard to treat malignancies as squamous carcinoma of the esophagus, head and neck and cervix. Over the last 18 months, 110 patients with evaluable different types and stages of malignancy have been treated with a combination of radiation, continuous infusion 5-Fluorouracil and bolus Mitomycin-C at the Lexington Radiation Therapy Center. Eighty-four are currently evaluable. In this manuscript, we report our initial results and review the results of other groups.

Although some reports of radiation therapy and simultaneous bolus chemotherapy had in the past suggested some improved benefit, this was not found to be very great. The first major study showing improved results with combination therapy was in the treatment of squamous cell carcinoma of the anus as reported by Nigro in 1974 and updated in 1983.[1] Treatment consisted of three weeks of radiation combined with constant infusion 5-FU at 1000 mg per mg^2 for four days while administering the first five fractions of radiation and a single bolus injection of Mitomycin-C with the first day of treatment. Chemotherapy was repeated on week five, two weeks after completion of radiotherapy. Seven of 12 patients treated by AP resection four to six weeks after completing combined therapy showed no evidence of residual tumor in the specimen. An additional 14 patients had had complete clinical disappearance of their tumor after this combined therapy and on excision of the scar were found to be pathologically free of cancer. Thus 21 of 28 patients with squamous cell carcinoma of the anus achieved complete remission using combined modality therapy, many without requiring surgery, and these patients have remained free of disease after a number of years of follow-up.

Similar results, with this combination of 5-FU and radiation therapy, have been reported by others (Cummings *et al*[2] and Byfield *et al*[3]). These results compare favorably to a 30-60% prolonged relapse-free survival rate with radiation therapy alone and 20-78% long term relapse-free survival rate in surgical series.

The toxicities of the combined therapy are little different from that of radiation therapy alone and excellent preservation of normal rectal sphincter function is seen. We have treated eight patients with squamous cell or basaloid carcinoma of the anus and observed seven biopsy proven complete remissions and one partial remission which was then rendered a complete remission with AP resection. These patients have been followed

now for a median of six months with eight out of eight patients continuing in excellent continued remission.

With these initial encouraging results in the relatively rare squamous cell carcinoma of the anus, other studies have been undertaken to evaluate the response of squamous cell neoplasms in other locations to this same type of therapy. Standard treatment of squamous cell carcinoma of the esophagus with surgery alone or with conventional preoperative or postoperative radiation has a five year survival of only 2 to 25 %[5]. Investigators at Wayne State University have studied 30 patients presenting with regional but not metastatic disease, treated preoperatively with infusion 5-FU, bolus Mitomycin-C and simultaneous radiation (3000 rad in three weeks). Six of those 30 patients had no evidence of residual cancer in the esophagectomy specimen and four of those are free of disease five years later. Three additional patients had only microscopic disease in the resected esophagus only. In nine of 17, microscopic disease was identified beyond the esophageal muscle and five had gross tumor left by the surgeon. Of six patients who refused surgery, five died of metastases without local disease. Surgical mortality was, however, unacceptably high (30%). In an effort to improve these results, a second study was conducted in 21 similarly staged patients treated with infusion 5-FU, bolus cis-Platinum and simultaneous radiation therapy. Fifteen patients were resected for cure, five of whom (33%) had no evidence of cancer in their surgical specimens. Two patients refused surgery and four were found to be unresectable. There again was a high surgically related mortality of 27% with three of five patients dying who had negative specimens at the time of surgery. (All patients died of respiratory failure secondary to pneumonia or sepsis.)

A large national trial of 5-FU, radiation and cis-Platinum is currently in progress.[6] As of early 1984, 138 patients had been entered and 110 patients are evaluable. Eleven patients were unresectable and 24 refused surgery. Of the 75 patients operated, 19 or 22% had no cancer at the time of surgery. It is currently being considered whether to operate or not on those patients who achieve rigorously defined complete clinical remissions.

At the Lexington Clinic, we have treated 15 patients with various stages of esophageal carcinoma and observed nine of 15 clinical complete responses and three good palliative responses. The duration of survival of these patients is as yet unknown. The interesting features of this type of therapy are the high percentages of response compared to previous treatments, the acceptable toxicity of the therapy and the good preservation of normal esophageal function.

This type of treatment has been extended to squamous cell carcinoma of the head and neck. Byfield[7] recently reported 17 patients with unresectable squamous cell carcinoma of various head and neck sites treated with weekly cycles of 1000 rad and 120 hours infusion of 5-FU given on alternate weeks to a total of 5000 rad. Complete remissions were observed in nine of 12 stage IV patients and one of two stage III patients. Two additional patients underwent post therapy resection with only one having viable tumor. One additional patient recurred after treatment and was resected. Short term follow-up of those achieving complete response shows more than 50% of patients surviving at two years. We have treated 17 patients with unresectable squamous cell carcinomas of the head and neck, either for palliation or cure. Twelve of 17 achieved complete remission (two died of distant metastases with local control), one had no response when treated palliatively, one died of treatment related toxicity that had previously received combination chemotherapy and one is lost to follow-up.

Squamous cell carcinoma of the cervix has recently been treated by 5-FU, Mitomycin-C and infusion 5-FU. Thomas *et al*[8] reported complete responses in 20 of 27 patients with advanced (IIIB, IVA) and three out of eight patients with recurrent squamous cell carcinoma of the cervix. Sixteen of the 27 patients treated for the primary tumor are alive and disease-free at the current time while, in those relapsing, only one of the four relapses was in the treatment field. We have treated three patients at the Lexington Clinic with cervical carcinoma and seen one good palliative response, one complete response with a negative specimen at resection and one patient who is too early for evaluation at this time who only had microscopic residual disease at surgery.

These reports show, and our experience confirms, improved results in cancers previously only moderately benefited by radiation therapy alone and where chemotherapy alone has little to offer. Interestingly, not only are more and better responses being observed but those who fail mainly do so outside the treated area (uncovering the problem of metastases of tumors not known for this because previously the primary site caused death before metastases became a clinical problem). The toxicity of this type of therapy is generally well tolerated with temporary mucositis being the major problem and

occasional limited cytopenia being observed. Treatment related mortality is exceptional and in our experience only observed in a patient compromised by persistent antecedent drug effects before the beginning of this program.

This new use of established chemotherapeutic agents in combination with radiotherapy with improved results and good tolerance is very exciting. It seems more patients may achieve more benefit employing combined radiation therapy and infusion chemotherapy now than with previously used "standard" types of therapy. In addition, other drugs used similarly with radiation may open other previously untreatable malignancies to responsiveness. We should continue to expand our experience, investigate new combinations and work to improve the results of treatment for the patient with cancer.

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EDITORIAL

Disease by disease medicine inexorably closes the gap between uncontrolled destruction and cure. Centers dotting the country house eager scientists, both singly and en masse, answering the questions of the day. Aged and infants, who once were precariously at the edge of passing, now can realistically expect their time. Plagues are rare, infections have been mostly tamed, organs have been repaired *in vivo* and replaced by like. Asylums are emptying their halls with psychopharmacy reigning in the uncontrolled. To the degree lives become important individuals expect to have their time, and despite the financial crunch there seems a means to an end.

Suddenly the earth shifts its layers, uncomfortable with status quo. Richter made his logarithmic scale, each ascending number reverberating with tenfold destruction. Mexico quaked and its buildings came tumbling down. All the president's people could not put together again what a half minute of earth's madness rent asunder.

Lives were snuffed under concrete caskets. Hospitals became tombs rather than temples for healing. No respect for doctors, for nurses, for infants, for aged, for mothers or fathers was given. Thousands perished in a moment's time.

Such sobering happenings are what makes one doctor's perspective too clearly refocused.

Stephen Z. Smith, M.D.

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Surgery of Persistent and Recurrent Hyperparathyroidism

M. D. RAM, M.D., PH.D.

The problems of persistent and recurrent hyperparathyroidism were reviewed and two patients were presented. One patient illustrates the problem of persistent disease in primary hyperparathyroidism. The second patient illustrates the problem of recurrent secondary hyperparathyroidism. The management of these problems with special emphasis on—reasons for failure of first exploration, to reoperate or not, techniques of localization, to reoperate on the neck or the mediastinum, and the management of the patient after re-exploration were discussed and recommendations were made.

Persistent and recurrent hyperparathyroidism, while not an everyday problem, is a frustrating and difficult situation. The condition is referred to as persistent when the calcium levels following parathyroidectomy remain high two weeks after the operation and thereafter. There may be a transient hypo or normocalcemia after the operation and the reasons for this transient drop in calcium levels may be a metabolic response to surgery, manipulation of the thyroid and parathyroid glands or temporary ischemia of the glands. Therefore, the level of the calcium two weeks after the operation is important and if it remains high is referred to as persistent hypercalcemia due to persistent hyperparathyroidism. Recurrent hyperparathyroidism, on the other hand, is a situation occurring following a parathyroidectomy in which one or more of the glands are removed and the patient becomes hypo or normocalcemic but after a period of time becomes hypercalcemic with all the features of hyperparathyroidism. The problems of recurrent and persistent hyperparathyroidism are not new and the examples of two of the most famous patients with this disease have been well documented.[1,2] The first patient was the one who had the first surgical parathyroidectomy and was operated on by Mandl of Vienna in 1925. Mandl thought the disease was due to a deficiency of parathyroid function and at the first operation performed parathyroid implantation. A year later, due to worsening of the disease features he operated on, a parathyroid adenoma was removed. The condition did not improve in Mandl's patient, and he was operated on again in 1932. No tumor was found and a subtotal thyroidectomy was performed. The specimen showed two normal functioning parathyroid glands. The second patient was the famous Captain Charles Martell who underwent a total of seven operations in 15 years. At various times, two normal parathyroid glands were removed and a total thyroidectomy was performed. Finally he improved following removal of mediastinal adenoma by Dr. Churchill. The following is a summary of two patients whom I have treated recently and an illustration of these problems.

Case Reports

Patient #1 is a white male born in 1925 and discharged from the armed services in 1947 with a diagnosis of anxiety neurosis. He first developed metabolic problems in September, 1964, and at age 39 was seen at the V.A. Medical Center, Richmond, Virginia. At that time, he was diagnosed as having a right renal calculus and on investigation was found to have hypercalcemia (serum calcium 10.8 mg/dl. Normal range 8-10 mg/dl) and also hypercalciuria.

In November, 1964, he underwent an exploration of the neck for parathyroid glands. The right superior parathyroid gland was identified and histologically confirmed. It appeared normal and one half of the gland was removed and the other half implanted in the right sternocleidomastoid muscle. The right and left inferior glands were not identified. There was a 2 cm. adenoma located in the left superior gland and this was removed.



Fig. 1. Selective angiogram of neck—patient #1. Subtraction study showing a vascular lesion in the left lobe of thyroid.

The patient was transiently normocalcemic but by July of 1965 his calcium level was back to 11.1 mg/dl and his phosphate was 3.1 mg/dl. The same month he had a removal of a right ureteral stone which was lodged at the ureterovesical junction. Subsequently, he was seen at the V.A. Medical Center, Huntington, West Virginia in 1968 when he underwent a laminectomy for a prolapsed intervertebral disc and in 1975 a right inguinal herniorrhaphy. On both admissions, he had an elevated calcium level. He was next seen at the V.A. Medical Center, Lexington, Kentucky in December of 1979 with a history of blackout spells and anxiety neurosis. His calcium at that time was 11.2 mg/dl. An intravenous pyelography was performed and this revealed a right renal calculus. Another finding on that admission was a presence of a nodule in the prostate which was biopsied by a needle and revealed a well differentiated adenocarcinoma. He underwent an evaluation for metastatic disease (which was negative) and also for parathyroid bone disease. A staging laparotomy with lymphadenectomy was performed in April, 1980, and revealed nine of nine glands positive in the right iliac chain, one of five glands was positive on the left side. He was seen for the next 12 months for numerous problems such as nocturia and dysuria, underwent a transurethral resection of prostate and a bilateral orchiectomy to control his prostatic cancer. In January of 1981 his serum calcium was 11.2 mg/dl. His serum parathyroid hormone (PTH) level at that time was 374 U. (normal 150-300). He was evaluated for a possible multiple endocrine adenopathy syndrome and a CAT scan of the neck and abdomen were performed, both of which were normal. Repeat studies showed a serum calcium of 11.5 mg/dl and a serum PTH level of 506 U. Studies for elevated catecholamines were negative. He underwent a selective angiography of the vessels of the neck and this revealed a vascular blush in the middle of the left thyroid lobe, thought to be a possible parathyroid adenoma (Fig. 1). During the year he also passed nine urinary stones, all of which were of the calcium oxalate variety.

In January of 1982 with the problems of persistent hypercalcemia, hypercalciuria and repeated renal stone formation, he underwent a neck exploration. The right superior and the left superior glands were not identified. These were the ones that were removed at the first exploration in 1964. The right inferior gland was the site of an adenoma which measured 1.5 × 1 × 0.8 cm. and weighed 853 mg. The left inferior parathyroid was identified and biopsied at operation and was located in the thymus tissue. The thymus was also excised and a left thyroid lobectomy was performed because of the previous angiographic findings. At histology, the adenoma was a chief cell variety and the left inferior gland was an atrophic parathyroid gland. The thymus was atrophic and the left thyroid lobectomy did not reveal any parathyroid tissue. Postoperatively, his serum calcium dropped to a level of 7.5 mg/dl, and he required oral calcium and vitamin D supplementation. He was seen during the year and at follow-up recently in April, 1985, his serum calcium measured 9.2 mg/dl, phosphate was 4.5 mg/dl and his PTH level was

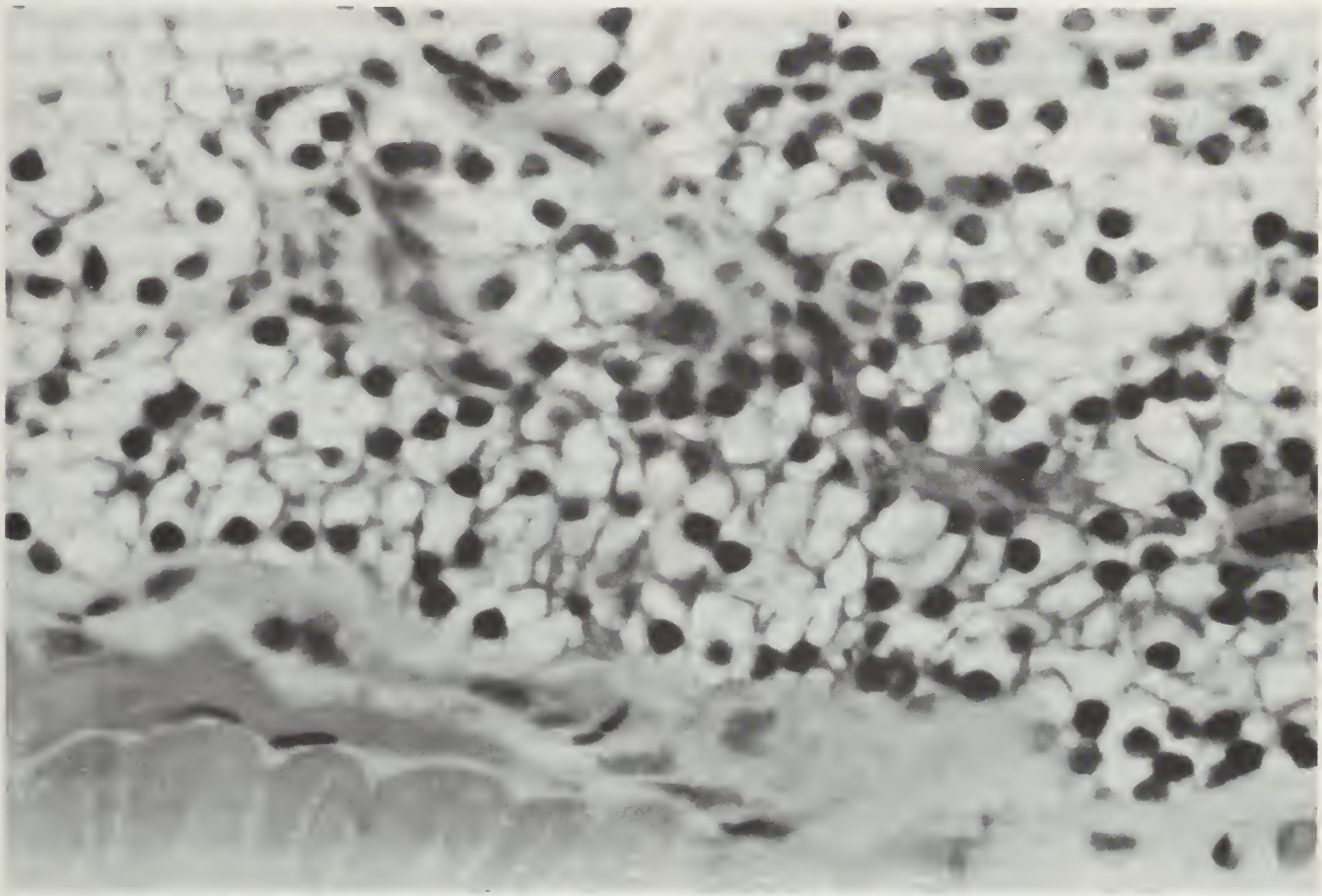


Fig. 2. Photomicrograph of parathyroid tissue removed from thigh—patient #2. Note the striated muscle at the bottom and highly cellular parathyroid tissue adjacent. (H & E x 800)

below the lower limit of normal. He has not had any further urinary stones and continues to do well on oral calcium supplements and vitamin D.

Patient #2 is a white male who is 41 years of age at this time. The patient was first diagnosed to have chronic renal failure due to chronic glomerulo-nephritis in 1976. At that time he was hypertensive. The serum calcium level was 9.8 mmg/dl and the alkaline phosphatase was 104 units. The patient was initially treated conservatively and in 1977 underwent an arteriovenous fistula and was put on regular hemodialysis. Over the next three years, he developed increasing bone pain and moderate elevations of serum calcium (10.1-10.5 mg/dl). The serum phosphate was 7.3-8.0 mg/dl and the alkaline phosphatase ranged from 800-940 units/dl. An assay for serum PTH revealed a level of 17,070 Pg. Eq/ml (normal 60-450). This was confirmed on three occasions. Radiologically, he had significant decalcification and erosion of the cortex of the phalanges, the lateral end of the clavicle, and the alveolar ridge. In view of the progressive renal osteodystrophy, he underwent a total parathyroidectomy with implantation in October, 1980. All four glands were identified and removed. Histologically, all showed hyperplasia. About 40-50 mg. of parathyroid tissue was implanted in the right thigh in the medial compartment. Postoperatively, he required calcium supplementation and was also treated with vitamin D. The following year, his calcium started going up again from a level of 8.8 to 10.9 mg/dl. The serum phosphate ranged from 6.5 to 8.8 mg/dl. At this time, he was evaluated for a possible renal transplantation and underwent a transurethral resection of the bladder neck and a left nephrectomy because of infection. In 1982 he underwent a cadaver renal transplantation. He developed severe rejection and had to undergo transplant nephrectomy. During the latter part of 1982, he continued to complain of bone pain and at that time his PTH level was 17,900 Pg. Eq/ml. Over the next few months, his serum calcium ranged from 9.3 to 10.9 mg/dl in spite of weaning him from supplemental cal-

cium and his bone pain became worse. Radiologically, there was some evidence of ectopic calcification. A bone biopsy revealed significant osteoclastic activity. Serum PTH assay was performed from the right femoral vein (level 35,850 Pg. Eq/ml) and systemic vein (31,000 Pg. Eq/ml). In view of his continuing bone disease and evidence of hyperparathyroidism, he was subjected to a partial excision of the implanted parathyroid tissue from the right thigh. This was excised (Fig. 2) and he was left with approximately 20 mg. of tissue to prevent him from becoming totally hypoparathyroid. The postoperative calcium levels were reduced (9.2 mg/dl) and his PTH levels also dropped from the previous high levels. Symptomatically, he is improved.

DISCUSSION

These patients present examples of the failure of primary surgery to control parathyroid disease. In a review of the literature, the persistence rate following surgery for primary hyperparathyroidism ranges anywhere from 1.5 to 12% and the recurrent rate is estimated to be less than 1%.[3] Combining the problems of persistence and recurrence together, Brennan *et al*, based on a collective review,[4] came to the conclusion that about 5.4% of all parathyroid operations result in a persistent or recurrent disease. The first patient is an example of persistence, since the patient was hypercalcemic at about eight weeks after the operation. The evidence indicates, in fact, that he had a persistent problem and not so much a recurrence. The second patient had a recurrence due to too much implanted parathyroid tissue and continued stimulus.

REASONS FOR FAILURE

The three major reasons for failure of the first operation to cure hyperparathyroidism are anatomy, pathology, and technique.[5] The location of the four normal parathyroid glands is fairly well recognized but once they are the sites of adenomas, they can migrate. The posterior mediastinum and the paratracheal space are the most logical extension of these spaces. Occasionally the parathyroid gland may be within the thyroid gland, behind the pharynx, or even in the carotid sheath. The surgeon operating for parathyroid disease should be very familiar with areas in which a parathyroid gland may be located so that inadequate operations are not performed. In most major centers, only one or two surgeons perform parathyroid surgery and the occasional general surgeon doing the procedure is more likely to miss an abnormally located gland. A thorough knowledge of anatomy, therefore, is the first prerequisite. The second major cause of failure is the pathology. The most common cause of primary hyperparathyroidism is a single adenoma in most series.[3,6] Primary hyperplasia has been noted to be the major cause in a few series but this has not been the experience of most surgeons. The histologic differentiation of hyperplasia from adenoma is very difficult. At frozen section, the pathologist can only identify whether the tissue that has been biopsied is parathyroid tissue or not and whether it appears normal. If the gland is atrophic, it usually has a large complement of fat in it. The presence of compressed area of normal parathyroid in a gland which is the seat of an adenoma is another useful finding, but is not always easily seen. The presence of multiple adenomas is certainly uncommon; but the surgeon should make reasonable efforts to identify at least two or three of the remaining parathyroid glands. If one gland is obviously the site of the adenoma and on biopsy one or two other glands are normal or hypocellular, then the operation can be terminated.[6] On the other hand, if the glands are uniformly enlarged and are equally hypercellular, the neck operation should be continued until all four glands are identified and appropriate operation performed. The conservative exploration has been found to be useful in the hands of most surgeons and carries the advantage that symptomatic hypocalcemia is only seen in two to four percent. On the other hand, a routine exploration of all four glands including routine removal of 3½ glands when more than one gland is enlarged, associated with a liberal biopsy procedure, results in a high rate of symptomatic hypocalcemia (24%).[6] The surgeon performing the procedure should be aware of the pathologic varieties of hyperparathyroidism and choose a line of approach that would result in a cure and at the same time does not carry the risk of hypocalcemia or recurrent laryngeal nerve paralysis. The third cause of failure is one of technique that required a bloodless field, meticulous dissection, and knowledge of the anatomy and patterns of distribution of the gland. Other factors in technique that are important are failure to confirm the diagnosis by frozen section biopsy, confusion of thyroid adenomas with enlarged parathyroids, contusion of the tumor, accidental maceration and avoidance of tissue spillage.

To Reoperate or Not

Once the decision is reached that the patient has either persistent or recurrent hyperparathyroidism, the

question arises whether the patient needs to be reoperated or not. Not all patients need to be operated.[5] The first step is to reevaluate the diagnosis and make sure that there was no mistake in the original diagnosis of hyperparathyroidism. One should exclude other causes of hypercalcemia. In the absence of evidence pointing to other causes and the diagnosis remains as primary or secondary hyperparathyroidism, the treatment is not necessarily surgical. If the hypercalcemia is less than 11 mg/dl and is not symptomatic, the patient can be managed medically. Reoperations are associated with complications and certainly an asymptomatic patient with a mild hypercalcemia can usually be treated medically. On the other hand, if hypercalcemia continues to be significant and is associated with symptoms such as in the patients presented, the decision has to be in favor of re-exploration. Prior to such re-exploration, it is very useful to localize the parathyroid tissue in the patient.

Techniques of Localization of Parathyroid Glands

Most surgeons who perform parathyroid surgery agree that prior to the primary operation, preoperative localization studies are not needed. If the surgeon has enough experience, the glands can be identified, localized, and removed. On the other hand, prior to reoperation, it is certainly worthwhile to localize the glands. There are a number of techniques described for parathyroid localization.[7] Plain x-rays of the neck are performed because they are simple but do not often provide any worthwhile information. Barium swallow or cine-esophagography is also a relatively simple procedure, but the usefulness of this test has been only from 17-25% in different studies and it is not worthwhile. Radioisotopic scans using Selenium 75 labelled Methionine and thyroid lymphography have been reported to be useful.[8,9] In limited series, they have been useful but the value of these techniques in the evaluation of recurrent or persistent disease has not been proven. More recently, ultrasonography and CAT scans have been utilized with variable success, but again, no large series documenting their usefulness has been published. The CAT scan has been positive in about 20% of patients prior to re-exploration in a series reported from the National Institute of Health.[4] Two other possible techniques that might be useful in the future are magnetic resonance imaging and radioimmunodetection methods.

Of the techniques available at present, selective arteriography of the vessels in the neck and selective venography and assay of venous samples for parathyroid hormone are the most useful techniques.[10] Both require excellent radiologic techniques and are not simple. Arteriography requires skilled technical help and the radiologist should be able to cannulate small branches, mostly of the inferior thyroid artery but also of the other vessels in the neck. In a reoperation situation, it is likely that some of the vessels have been ligated previously, and additionally, the parathyroid gland/adenoma might be receiving blood supply from an aberrant vessel. The limitations of the technique again are that it might point out hyperfunctioning or vascular thyroid adenomas and it is difficult to separate these from parathyroid lesions. In fact, in patient #1, the left lobe of the thyroid was thought to be the seat of the parathyroid adenoma and hence, it was removed at operation, but at histologic examination the vascular area proved to be a thyroid adenoma. Arteriography has also been associated with neurologic sequelae and cardiovascular complications. The success of arteriography in localization studies before re-exploration has been found to be from 55 to 73%.[4,7,10,11] On the other hand, venous catheterization and analysis of venous blood samples for parathyroid hormone assay has been a little more successful and the accuracy of this procedure has been reported to be 85-90%. This technique again requires the services of a skilled radiologist. Venous anatomy of the neck is distorted following the primary procedure and the angiographer has to localize a number of small veins and obtain adequate samples so that the hormone assay can be performed. The technique is much more useful in lateralization of the gland and may not actually localize. The hormone assay itself is a fairly expensive assay and in one cost benefit analysis it has been reported that venous sampling will cost approximately $1,900 per patient.[11] Unless the radiologist is familiar with this technique and has experience, it might end up as a costly and useless procedure.

The Operation—Neck or Mediastinum

In the experience of most surgeons, re-exploration of the neck has been successful in finding the offending gland(s) in a large proportion.[5] Even when they descend down because of enlargement, they are usually reached from the neck incision.[4,5] The need for a mediastinal exploration has been infrequent in most series. The cervical approach has been successful in about 80-90% of operations. At the Mayo Clinic, only 14 mediastinal explorations were required in 1,000 parathyroid operations.[11] The surgeon would make a conscientious effort to look for the glands in the neck and from the neck

incision into the superior mediastinum. Only when this has failed and the preoperative localization is suggestive of a gland in the mediastinum, should the mediastinum be explored. Even then, it is preferrable to do it on a separate occasion than at the time of the neck exploration, because it could be a prolonged and tedious procedure. At operation, all suspected tissue should be examined and confirmed histologically and offending tissue removed. Even at re-exploration, most often the pathology is a single adenoma and removal would result in a cure. When multiple gland disease is present, the surgeon should perform a total excision of the glands in the neck and implant part of one of the glands, usually in the muscle of the forearm or alternatively in the leg. When there is doubt as to the indications for reimplantation, it is perfectly feasible to cryopreserve parathyroid tissue and reimplant it at a future date when there is evidence of hypoparathyroidism.

Management of the Patient after Re-Exploration

Successful removal of a single large adenoma at re-exploration is usually followed by a return of the calcium level to normal after a short period of hypocalcemia. However, when multiple gland excision has been performed, hypocalcemia is a significant problem. This should be monitored for in the postoperative period and treated by oral supplementation of calcium and vitamin D. Patients can be managed successfully by this technique. The role of reimplantation of parathyroid tissue following cryopreservation has already been mentioned above.

In conclusion, the surgery of the recurrent parathyroid disease is not suitable for every general surgeon and should only be performed by surgeons who have had experience. When there is a recurrence or persistence of the disease, neck exploration should be carried out by an experienced surgeon. Preoperative localization studies are helpful and, in most patients, the offending gland is located in the neck.

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Presented at Grand Rounds, Department of Surgery University of Kentucky Medical Center, Lexington, KY

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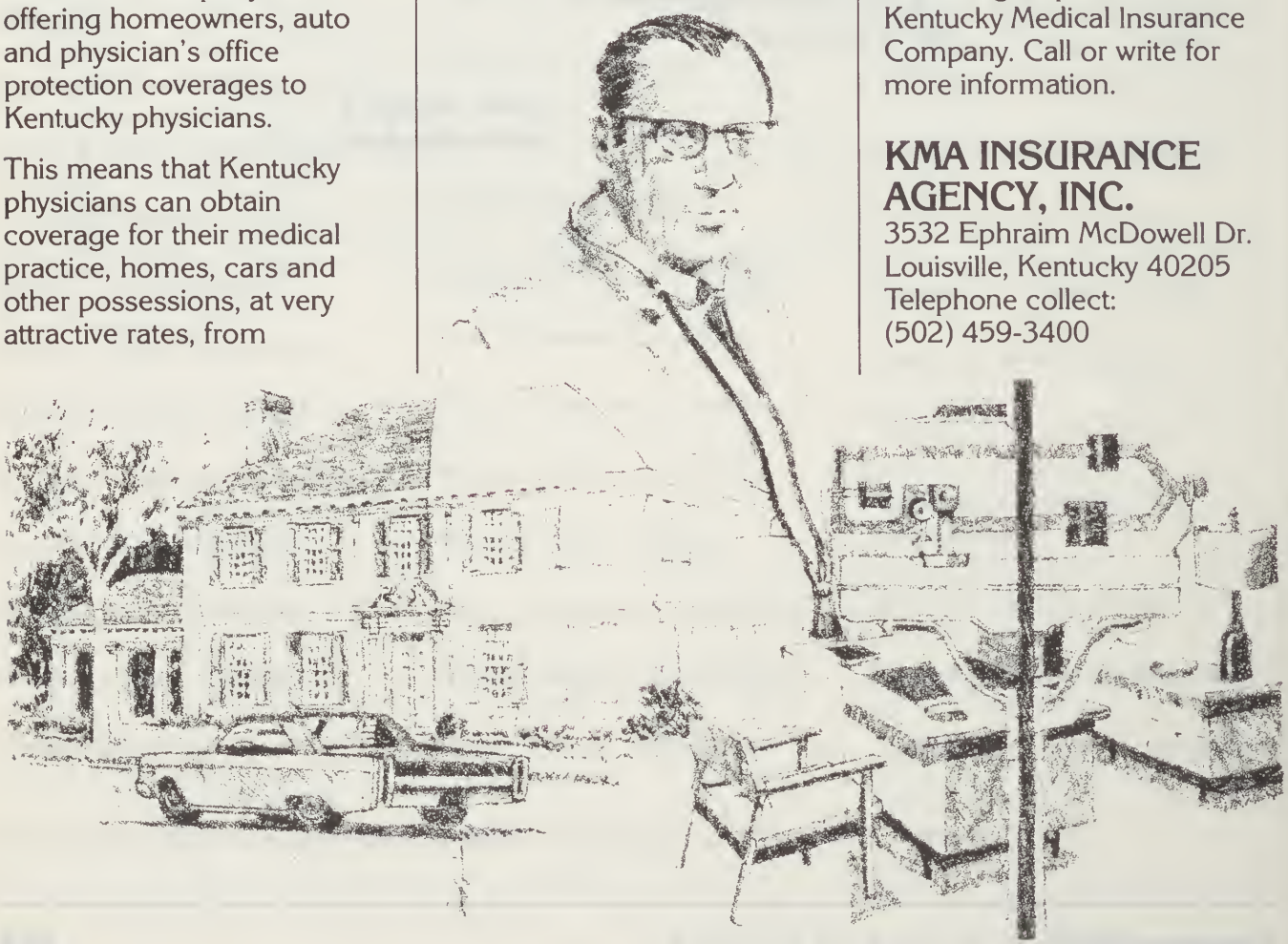
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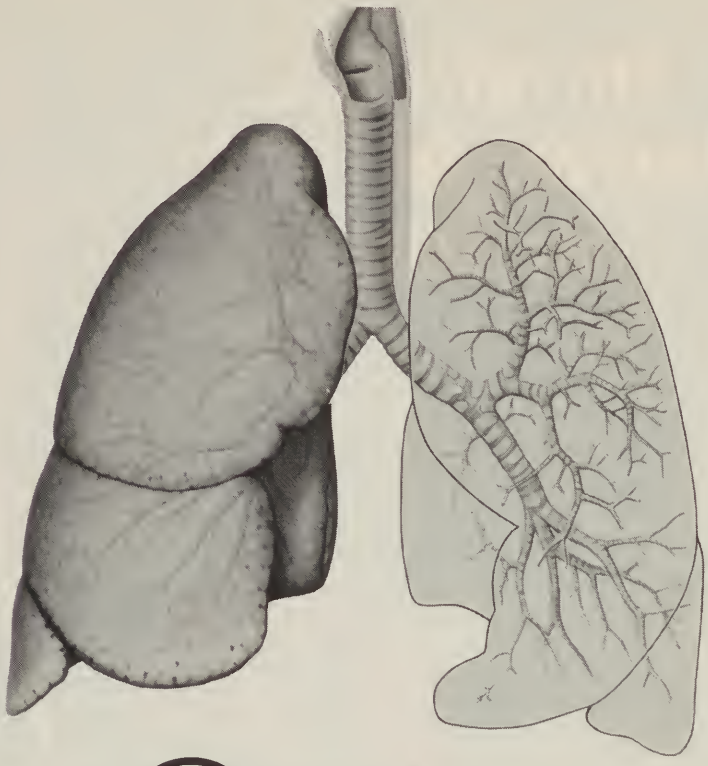
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Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

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Note. Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

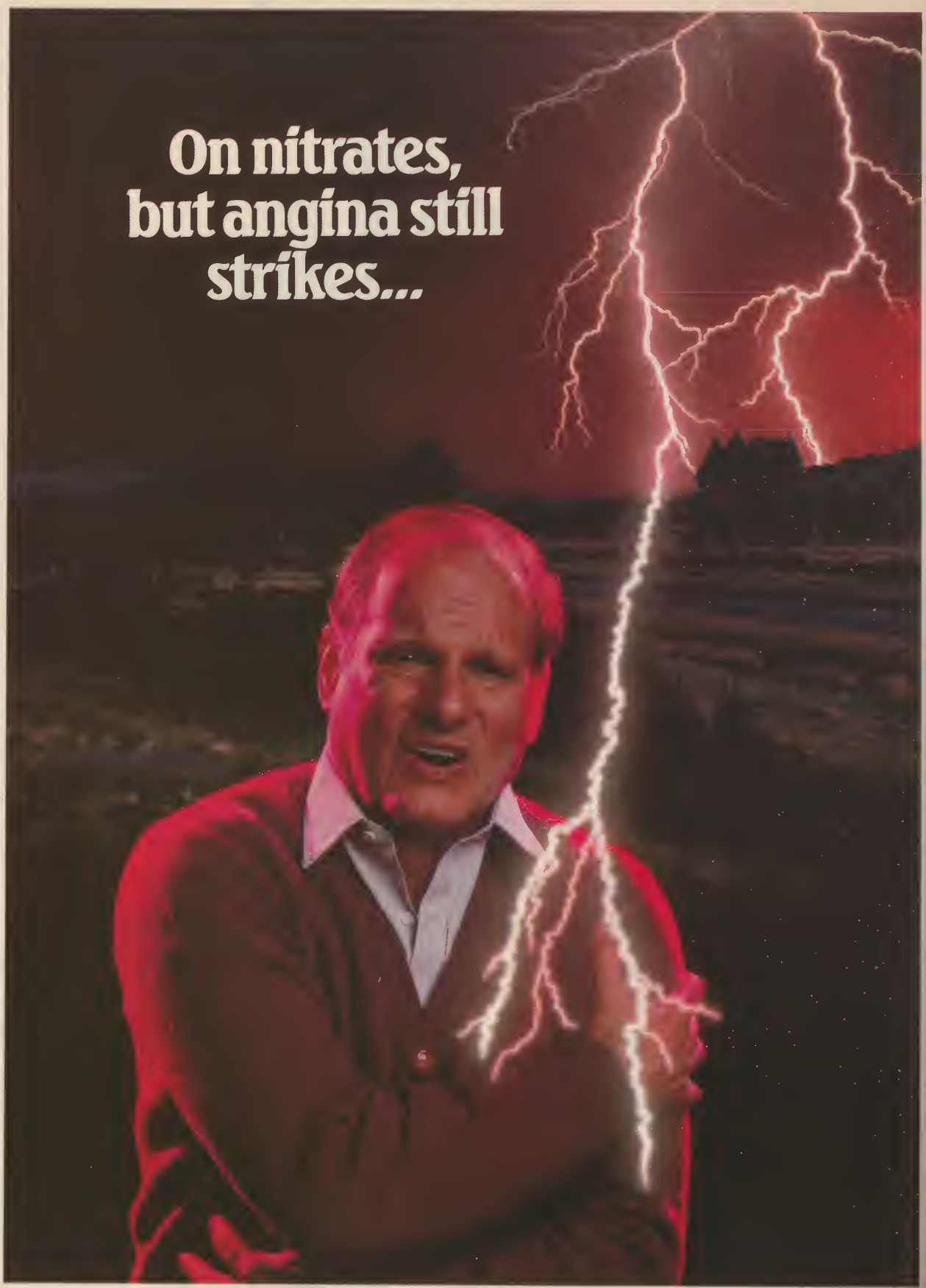
Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. 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One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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Highlights of the 1985 KMA Annual Meeting

Richard F. Hench, M.D., a Lexington internist, was chosen KMA President-Elect during the 135th Annual Meeting of the KMA House of Delegates. Doctor Hench has served KMA as Alternate Trustee, Trustee, Vice President and two terms as Chairman of the Board. He is a 1956 graduate of Temple University School of Medicine.

Donald C. Barton, M.D., a family practitioner from Corbin, was elected Vice President and reelected AMA alternate Delegate. Doctor Barton is a former Chairman of the KMA Board, 15th District Trustee and AMA Delegate.

Nelson B. Rue, M.D., Bowling Green, was named Chairman of the Board for a second consecutive term. A surgeon, Doctor Rue has served as Trustee from the Sixth District since 1981.

Henry R. "Hank" Bell, M.D., a family practitioner from Elkton, was named Vice Chairman of the Board for his second consecutive term. Doctor Bell has served as Third District Trustee since 1980.

In other elections, the KMA House of Delegates elected Cecil D. Martin, M.D., Carrollton, Seventh District Trustee; Kelly G. Moss, M.D., Maysville, Ninth District Trustee; and Jerald M. Ford, M.D., Ashland, 13th District Trustee. Reelected were Albert H. Joslin, M.D., Owensboro, Second District Trustee and Preston P. Nunnelley, M.D., Lexington, 10th District Trustee.

Alternate Trustees elected were O. M. Patrick, M.D., Frankfort, Seventh District; Robert L. McKenney, M.D., Falmouth, Ninth District and Charles T. Watson, M.D., Ashland, 13th District. Reelected were John W. McClellan, M.D., Henderson, Second District and Thomas K. Slabaugh, M.D., Lexington, 10th District. James S. Gwinn, Jr., M.D., Paducah, was elected Alternate Trustee for the First District to fill a one-year unexpired term.

Fred C. Rainey, M.D., Elizabethtown, and Donald C. Barton, M.D., Corbin, were both reelected AMA Delegates. Wally O. Montgomery, M.D., Paducah, and Harold L. Bushey, M.D., Barbourville, were reelected alternate AMA Delegates. The two-year terms will begin January 1, 1986.



Richard F. Hench, M.D., Lexington, makes his acceptance speech after being chosen KMA President-Elect.

President's Luncheon

During the President's Luncheon, Robert N. McLeod, Jr., M.D., of Somerset, was honored as recipient of the 1985 KMA Distinguished Service Award. Doctor McLeod, a pediatrician, was honored for his dedication to children and his work in sports medicine. In his introduction of Doctor McLeod, S. Randolph Scheen, M.D., Chairman of the Awards Committee, stated, "Doctor McLeod has been instrumental in developing standards and requirements for athletic trainers for high school teams throughout Kentucky. Primarily through his efforts, Kentucky was a forerunner in establishing standardized training regimens for young athletes including injury treatment and prevention."



S. Randolph Scheen, M.D., (left) presents Robert N. McLeod, Jr., M.D., Somerset, with the KMA Distinguished Service Award.



The KMA Award was presented to Jef (center) and Hunt Ronnsavall of Louisville.



Sally S. Mattingly, M.D., Lexington, accepted the AMA-ERF check on behalf of the University of Kentucky School of Medicine.



Nelson B. Rue, M.D., (left) KMA Chairman of the Board, gives the oath of office to Wally O. Montgomery, M.D., Paducah, 1985–86 KMA President.



Donald R. Kmetz, M.D., Louisville, accepted the AMA-ERF check on behalf of the University of Louisville School of Medicine.

For the first time, KMA awarded the Layman Award to two individuals, Jef and Hunt Rounsavall of Louisville, for their role in planning and implementing the establishment of Kentucky's first Ronald McDonald House in Louisville. "The Rounsavalls experienced the hardship of a critically ill child, and the long, agonizing waiting time in the hospital," explained Doctor Scheen in his introduction. "Unlike many of the other families, they were able to return to their home. Yet, in their difficult times, they saw a need for others and translated that concern to action."

House of Delegates

During the first meeting of the House of Delegates on September 30, Adelyn Spalding, AKMA Past President, presented AMA-ERF checks to the two medical schools on behalf of the Auxiliary. Auxiliaries across the country raise funds annually for the AMA-ERF which are in turn proportionally returned to medical schools for educational purposes. A check for $9,205.91 was presented to the University of Kentucky and $16,039.92 was presented to the University of Louisville. Jacqueline A. Noonan, M.D., was named the KMA Educational Achievement Award recipient. Doctor Noonan achieved distinction for her work as a pediatrician, currently serving as Chairman of the Department of Pediatrics at the UK College of Medicine and one of nine women chairpersons in the 145 Pediatric Departments in this country. She is internationally acclaimed in the field of pediatric cardiology and was a participant in the second joint USA/USSR Symposium on Congenital Heart Disease.



House of Delegates members from Fayette County, John E. Trevey, M.D., (left) Ardis D. Hoven, M.D. and John D. Cronin, M.D.



Michael E. Dunn, (left) guest speaker during the KEMPAC Seminar talks with 1st District Congressman Carroll Hubbard (D).



Michael E. Dunn, Washington, D.C., consultant in public affairs.



Thomas R. Berglund, M.D., Portage, MI, Chairman of AMPAC.



Guests enjoyed dinner and dancing at the McDowell/Crawford Ball.

Reports of the KMA Committees and Resolutions were introduced during the first House of Delegates meeting. During the second meeting the House considered 24 Resolutions and 50 Committee and Officers Reports. The major action of the House was the adoption of the Board of Trustees Special Report A, which proposes a Constitutional Amendment permitting limitation of medical liability awards with the following recommendations:

1. **TORT REFORM.** That KMA petition the Kentucky Supreme Court to modify or eliminate the Collateral Source Rule, and establish a mechanism for periodic payment of judgments awarded in medical liability cases, and that the KMA seek legislative and constitutional changes concerning limitation of awards and adjustment of the statute of limitations pertaining to minors.
2. **TASK FORCE.** The KMA will ask the Governor to appoint a special Task Force on medical liability.
3. **INTERNAL ACTIVITIES OF THE KMA** will include continued study of the role of Continuing Medical Education with a report to the 1986 House of Delegates, work with hospital medical staffs to develop committees on risk management and cost control, promotion of KMIC programs on claims awareness and prevention, and study of the issue of arbitration of medical liability cases.
4. **EXTERNAL ACTIVITIES** proposed for the KMA include strengthened communication with allied groups, public communication, patient education on the causes and effects of liability insurance costs, and that the KMA study and, where desirable, support AMA efforts to achieve national legislation affecting liability issues.

Other House action included:

- Approval of a one-year extension of the Kentucky Physicians Care Program, providing free physician services to indigent patients statewide.
- Recommend legislative changes in the statute of limitation as it relates to minors.
- Proposal that KMA petition the Kentucky Supreme Court seeking to nullify or eliminate the Collateral Source Rule and establish a mechanism for periodic payment of Judgments.
- Oppose a Kentucky Bureau for Health Services proposal for demonstration projects to provide acute ambulatory services through Health Departments.

Five physicians were elected by the House of Delegates to serve on the 1986 Nominating Committee. Members elected were: Paul J. Sides, M.D., Lancaster, Chairman; James S. Brashear, M.D., Central City; William D. Pratt, M.D., London; Mary L. Wiss, M.D., Pikeville, and Stuart G. Yeoman, M.D., Bowling Green.

Attendance

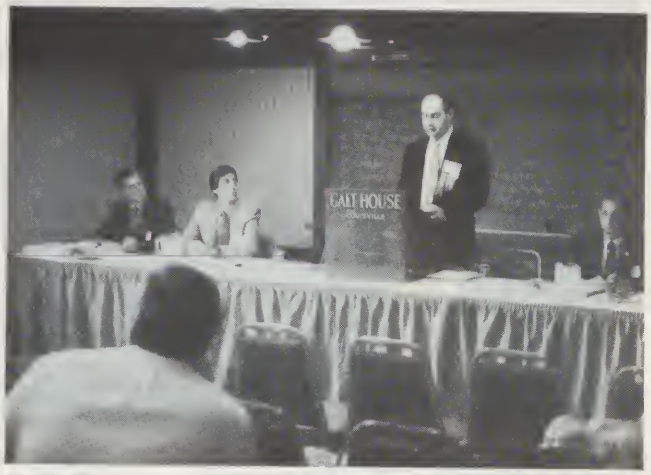
1,812 persons registered for the Annual Meeting. General Scientific and Specialty groups sessions were well attended as were both meetings of the House of Delegates. The 1986 KMA Annual Meeting is scheduled for September 21-25, at the Ramada Inn/Bluegrass Convention Center, Louisville.



One hundred exhibits were on display during the KMA Annual Meeting.



Dr. and Mrs. Hoyt Gardner, Louisville, (left) talk with Dr. and Mrs. Harold D. Haller, Louisville.



John M. Johnstone, M.D., Richmond, Chairman of Reference Committee #2.



William R. Handley, M.D., Elizabethtown, Chairman of Reference Committee #4.



Russell L. Travis, M.D., addresses Reference Committee #1 concerning extension of the Kentucky Physicians Care Program.





Dr. and Mrs. Wally O. Montgomery (left photo) and Dr. and Mrs. Charles C. Smith, Jr., M.D., shared the dance floor during the McDowell/Crawford Ball.



Donald C. Barton, M.D., Corbin, talks with Hoyt Gardner, M.D., Louisville.



Dr. and Mrs. Nelson B. Rue.



The Doctors Band provided the music during the McDowell/ Crawford Ball.



Mrs. Randolph Schrodt (Betty) and Dr. Schrodt (left) talk with Mary Ona Spalding and William M. Spalding, M.D., Louisville. Mrs. William Spalding (Adelyn) is trumpet player with the Doctors Band. (see adjacent photo)

Was Your Delegate Present?
ROLL CALL
1985 House of Delegates
KMA Annual Meeting

OFFICERS

		First Session	Second Session
President	Charles C. Smith, Jr.	Present	Present
President-Elect	Wally O. Montgomery	Present	Present
Vice-President	Richard F. Hench	Present	Present
Secretary-Treasurer	S. Randolph Scheen	Present	Present
Speaker	Peter C. Campbell, Jr.	Present	Present
Vice Speaker	Thomas Heavern	Present	Present
Delegate to the AMA	Fred C. Rainey	Present	Present
Delegate to the AMA	Harold D. Haller, Sr.	Present	Present
Delegate to the AMA	Donald C. Barton	Present	Present
Delegate to the AMA	Russell L. Travis	Present	Present
Alternate Delegate to the AMA	Kenneth P. Crawford	Present	Present
Alternate Delegate to the AMA	Wally O. Montgomery	Present	Present
Alternate Delegate to the AMA	Harold L. Bushey	Present	Present
Alternate Delegate to the AMA	Carl Cooper, Jr.	.....	Present

TRUSTEES

District			
First	John D. Noonan	.....	.....
Second	Albert H. Joslin	Present	.....
Third	Henry R. Bell	Present	Present
Fourth	Thomas R. Taylor	.....	.....
Fifth	Bob M. DeWeese	.....	Present
Sixth	Nelson B. Rue	Present	Present
Seventh	William P. McElwain	.....	Present
Eighth	William B. Monnig	Present	Present
Ninth	R. Kendall Brown	Present	Present
Tenth	Preston P. Nunnelley	Present	.....
Eleventh	Don E. Cloys	Present	Present
Twelfth	Danny M. Clark	Present	Present
Thirteenth	Garner E. Robinson	Present	.....
Fourteenth	Ronald D. Hall	.....	.....
Fifteenth	Emmanuel H. Rader	Present	Present

ALTERNATE TRUSTEES

District			
First			
Second	John W. McClellan	Present	Present
Third	N. H. Talley	Present	Present
Fourth	Wreno M. Hall	Present	Present
Fifth	E. Dean Canan	.....	.....
Sixth	J. Michael Pulliam	Present	Present
Seventh	Cecil D. Martin	Present	Present
Eighth	Donald J. Swikert	Present	Present
Ninth	Robert L. McKenney	.....	Present
Tenth	Christopher A. Boarman	.....	.....
Eleventh	William H. Mitchell	Present	Present
Twelfth	David C. Liebschutz	Present	Present
Thirteenth	Jerald M. Ford	Present	Present
Fourteenth	James R. Pigg	Present	Present
Fifteenth	Rufino Crisostomo	Present	Present

PAST-PRESIDENTS

Past President	James B. Holloway, Jr.	.....	.....
Past President	Dwight L. Blackburn	Present	.....
Past President	Ballard W. Cassady	.....	.....
Past President	Frank R. Pitzer	.....	.....
Past President	Robert S. Howell	.....	.....

DELEGATES

FIRST DISTRICT

		First Session	Second Session
BALLARD			
CALLOWAY	Charles D. Clark	.....	.....
	Robert Gary Marquardt	Present	Present
CARLISLE			
FULTON			
GRAVES	Robert D. Fields	.....	Present
HICKMAN	Bruce C. Smith	.....	.....
LIVINGSTON	Stephen Burkhart	.....	.....
MCCRACKEN	Collins Dale Brown	Present	Present
	Larry C. Franks	Present	.....
	James Gwinn, Jr.	Present	Present
	Ronald Kelley	Present	Present
	Robert P. Meriwether	Present	.....
	Luke Ross	Present	Present
MARSHALL	H. W. Ford	Present	.....

SECOND DISTRICT

DAVIESS	James E. Anderson	Present	Present
	Sam DunLany	Present	.....
	Albert H. Joslin	Present	.....
	Wayne Myers	.....	Present
	Donald Neel	Present	Present
	Leslie M. Riherd	Present	Present
	Charles O. Wilson, Jr.	.....	Present
HANCOCK			
HENDERSON	Kenneth M. Eblen	.....	.....
	John McClellan	Present	Present
MCLEAN			
OHIO	Eric N. Norsworthy	.....	.....
UNION			
WEBSTER			

THIRD DISTRICT

CALDWELL			
CHRISTIAN	Emmanual Battah	.....	Present
	Delmas M. Clardy	Present	Present
CRITTENDEN			
HOPKINS	Wallace R. Alexander	Present	Present
	James M. Bowles	Present	Present
	C. R. Dodds	Present	Present
	William H. Klompus	Present	Present
LYON			
MUHLENBERG	James S. Brashear	.....	Present
TODD			
TRIGG			

FOURTH DISTRICT

BRECKINRIDGE			
BULLITT	James H. Brewer	Present	.....
GRAYSON	Ray A. Cave	Present	Present
GREEN	H. B. Huntsman	Present	Present
HARDIN-LARUE	Clyde Brassfield	.....	.....
	William H. Carney	Present	Present
	Marion A. Douglass, Jr.	.....	Present
	William R. Handley	Present	Present
HART	George Boeckman	Present	Present
MARION	McDonald Gray	Present	Present
MEADE	John R. Gauld	Present	Present

NELSON	Charles B. Spaulding	Present	Present
TAYLOR	Henry F. Chambers	Present	Present
WASHINGTON			

FIFTH DISTRICT

JEFFERSON	Richard Allen	.....	Present
	Arnold Belker	.....	Present
	Harold W. Blevins	.....	Present
	W. C. Buschmeyer, Jr.	.....	Present
	Peter C. Campbell	Present	Present
	Alvin M. Churney	.....	Present
	Eugene H. Conner	.....	Present
	Samuel L. Cooper	.....	Present
	Bob M. DeWeese	.....	Present
	Larry D. Florman	.....	Present
	Hoyt D. Gardner	Present	Present
	Robert R. Goodin	.....	Present
	Larry P. Griffen	Present	Present
	Walter I. Hume, Jr.	.....	Present
	Thomas B. Hutsell	.....	Present
	Joseph Kutz	.....	Present
	Joseph C. Marshall, Jr.	.....	Present
	Russell T. May	Present	Present
	Gordon McMurray	Present	Present
	James P. Moss	.....	.....
	David H. Neustadt	Present	Present
	Robert L. Nold, Sr.	.....	Present
	Charles R. Oberst	.....	Present
	Lynn L. Ogden, II	Present	Present
	Hobert L. Pence	.....	Present
	C. Kenneth Peters	.....	Present
	Stephen J. Pollard	.....	Present
	Henry W. Post	Present	Present
	C. Ray Potts	.....	.....
	James E. Redmon	.....	Present
	K. Thomas Reichard	Present	.....
	Ben A. Reid, Jr.	.....	Present
	Barton H. Reutlinger	Present	.....
	William J. Sandman	.....	Present
	G. Randolph Schrodt	Present	Present
	Jerry W. Seligman	.....	Present
	Judah L. Skolnick	.....	Present
	Charles S. Smith	.....	Present
	Stephen Z. Smith	.....	.....
	Peter L. Thurman	.....	.....
	Donald T. Varga	.....	.....
	Thomas R. Watson	.....	Present
	Lolita S. Weakley	Present	Present
	Sam Weakley	Present	Present
	David H. Winslow, Jr.	.....	.....
	C. Milton Young	.....	Present
	Kenneth N. Zegart	Present	Present
	Walter Zukof	.....	Present
	Christopher Howerton (IT)	.....	.....
	Kristie Jones (IT)	Present	Present

SIXTH DISTRICT

ADAIR	Janice Aaron	Present	Present
ALLEN	Earl P. Oliver	Present	Present
BARREN	Lewis Dickinson	Present	Present
	Daryl P. Harvey	Present	Present
BUTLER	Frank England, III	.....	.....
CUMBERLAND	Samuel L. Rice	Present	Present
EDMONSON	Omkar N. Bhatt	.....	.....
LOGAN			
METCALFE			
MONROE			
SIMPSON	J. Michael Pulliam	Present	Present
WARREN	Jerry Martin	Present	.....
	Paul J. Parks	Present	Present
	L. Martin Wilson	Present	Present

SEVENTH DISTRICT

ANDERSON			
CARROLL	Cecil D. Martin	Present	Present
FRANKLIN	Joseph Dobner	Present	.....
	John Gergen	Present	Present
	Willis McKee, Jr.	Present	Present
GALLATIN			
GRANT	Darl Shipp	.....	.....
HENRY			
OLDHAM	Harold Funke	.....	Present
OWEN	David F. Smith	.....	.....
SHELBY	Ronald Waldridge	Present	Present
SPENCER	William K. Skaggs	.....	.....
TRIMBLE	Roderick H. MacGregor	Present	Present

EIGHTH DISTRICT

BOONE	John Ammon	Present	Present
	William Reutman	.....	Present
	Donald Swikert	Present	.....
CAMPBELL-KENTON	Gordon W. Air	Present	Present
	Charles Allnutt	Present	Present
	Todd M. Cook	Present	Present
	Thomas Heavern, Jr.	Present	Present
	Steve Jennings	.....	.....
	Devinder Mangat	.....	.....
	Tom Mayer	Present	.....
	Mark F. Pelstring	Present	Present
	Fred Stine	Present	Present
	Raymond J. Timmerman	Present	.....
	Vincent Ziegler	.....	.....

NINTH DISTRICT

BATH			
BOURBON	James R. Biggs	.....	Present
BRACKEN	Milton Brindley	.....	.....
FLEMING			
HARRISON	Donald R. Stephens	Present	Present
MASON	Donald Wilson	.....	.....
NICHOLAS	Osias Villaflor	.....	.....
PENDLETON	Robert L. McKenney	.....	Present
ROBERTSON			
SCOTT	Larry Jones	.....	.....

TENTH DISTRICT

FAYETTE	John R. Allen	Present	Present
	Robert P. Belin	.....	Present
	William E. Blackburn	Present	Present
	John D. Cronin	Present	Present
	W. Lisle Dalton		Present
	Harold T. Faulconer		Present
	John M. Fox	Present	.....
	Bill H. Harris		Present
	Joe Hiller		Present
	Ardis D. Hoven	Present	Present
	Thomas M. Jarboe	Present	Present
	Van R. Jenkins	Present	Present
	Dennis B. Kelly	Present	Present
	Paul G. Kyker, Jr.	Present	Present
	Sally S. Mattingly	Present	Present
	Edgar M. McGee	Present	Present
	William R. Meeker, Jr.	Present	Present
	Charles H. Nicholson	Present	Present
	John Poundstone		Present
	Thomas K. Slabaugh	Present	Present
	John E. Trevey	Present	Present
	H. Mac Vandiviere	.....	Present
	Gary Wallace	Present	Present
JESSAMINE	Phyllis D. Corbitt	.....	.....
WOODFORD			

ELEVENTH DISTRICT

CLARK			
ESTILL			
JACKSON	P. G. Raithatha	.....	.....
LEE	Arnold Taulbee	.....	.....
MADISON	John M. Johnstone	Present	Present
	William H. Mitchell	Present	Present
MENIFEE			
MONTGOMERY	William H. McKenna	Present	Present
OWSLEY	Mildred B. Gabbard	.....	.....
POWELL			
WOLFE	Paul F. Maddox	.....	.....

TWELFTH DISTRICT

BOYLE	David C. Liebschutz	Present	Present
	Scott Scutchfield	Present	Present
CASEY	Lewis E. Wesley	Present	.....
CLINTON	William C. Powell	.....	.....
GARRARD	Paul J. Sides	.....	Present
LINCOLN	Charles E. Crase	Present	Present
MCCREARY			
MERCER	Nick Dedman	Present	Present
PULASKI	Veryl Frye, Jr.	Present	Present
	William Watkins	Present	.....
ROCKCASTLE			
RUSSELL			
WAYNE	John W. Simmons	Present	Present

THIRTEENTH DISTRICT

BOYD	Howard B. McWhorter	Present	Present
	Susan Hess Prasher	Present	Present
	Bruce Stapleton	Present	Present
	Charles T. Watson	Present	Present
CARTER			
ELLIOTT	Brown L. Adkins	.....	.....
GREENUP	Charles Rhodes	Present	Present
LAWRENCE	George P. Carter	Present	Present
LEWIS			
MORGAN			
ROWAN	Ralph Thomas Fossett	Present	Present

FOURTEENTH DISTRICT

BREATHITT			
FLOYD	Nicholas Roger Jurich	Present	Present
	Lowell D. Martin	Present	Present
JOHNSON			
KNOTT			
LETCHER	Nilkanth Ranade	.....	.....
MAGOFFIN			
MARTIN	Gregory D. Wells	.....	.....
PERRY	Deborah McIntyre	Present	Present
PIKE	James Steve Davis	.....	.....
	Russell H. Davis	Present	Present
	Alex Poulos	.....	Present
	Oscar W. Thompson	Present	.....

FIFTEENTH DISTRICT

BELL	Robert B. Matheny	.....	.....
	Charles C. Moore, Jr.	Present	Present
CLAY	William E. Becknell, Sr.	Present	Present
HARLAN	Rachel R. Eubank	Present	Present
	James K. Hurlocker	Present	Present
KNOX	S. J. Sartori	Present	.....
	Rogelio A. Acosta	.....	Present
LAUREL	William D. Pratt	.....	.....
LESLIE			
WHITLEY	Roemer D. Pitman	Present	Present
	Carmel Wallace, Jr.	Present	Present

KMA Hospital Medical Staff Section-Stuart Yeoman

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, September 30 and October 2.

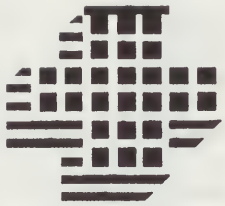
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(Required by 30 U.S.C. 3685)

1. Title of Publication: THE JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION
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10. Nonprofit organizations authorized to mail at special rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months.
11. Extent and nature of circulation:

	Average no. copies each issue during preceeding 12 months	Single issue Published nearest to filing date
A. Total no. copies printed:	4490	4490
B. Paid circulation:		
1. Sales through dealers and carriers, street vendors and counter sales:	0	0
2. Mail subscriptions:	3953	3953
C. Total paid circulation:	3953	3953
D. Free distribution by mail, carrier or other means.		
1. Samples, complimentary, and other free copies:	486	486
E. Total distribution:	4439	4439
F. Office use left-over, unaccounted, spoiled after printing:	51	51
G. Total:	4490	4490

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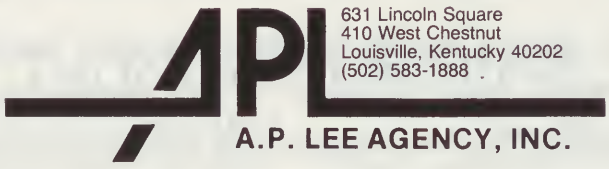
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Universal single phase generator, 2 way float table, Pako processor. Original cost $25,000. Take over lease. Contact: Anthony Suruda, M.D., 1055 Dove Run Road, Lexington, Kentucky 40502 (606) 269-4668

OB-GYN Physician needed in a new 72 bed acute care hospital in Eastern Kentucky. Physician must be Board Certified or Board Eligible and have a Kentucky license. Hospital offers monthly guarantee for 1 year, moving expenses, office rent for 1 year and medical office employees expense for 6 months. Send complete C.V. with personal history to: P.O. Box 1487, Paintsville, KY 41240.

Excellent surgical practice for sale. Retiring. Call office 606-744-3482. Home 606-744-4212.

The Frank H. Clarke, M.D. Memorial Meeting of the Kentucky Medical Association

Galt House
Louisville, Kentucky, September 30-October 3, 1985

*Digest of Proceedings of the Regular Session of the

House of Delegates

Peter C. Campbell, Jr., M.D., Louisville
Speaker of the House, Presiding

First Meeting

Peter C. Campbell, Jr., M.D., Speaker of the KMA House of Delegates, called the first meeting of the 135th session of the KMA House of Delegates to order at 9:00 a.m. on Monday, September 30, 1985. Following the Invocation given by Paul J. Parks, M.D., Bowling Green, the Chairman of the Credentials Committee, Earl P. Oliver, M.D., Scottsville, reported that a quorum was present.

A motion was made, seconded, and carried to approve the Minutes of the 1984 session of the House of Delegates as published in the December 1984 *Journal of the Kentucky Medical Association.*

S. Randolph Scheen, M.D., Louisville, Secretary-Treasurer, reported that scientific sessions would begin at 8:50 a.m. Tuesday, and the President's Luncheon would begin at 11:50 a.m. on Wednesday, at which time the new KMA President would be installed. Doctor Scheen reminded the Delegates that the Nominating Committee for general officers would meet at the close of the first meeting of the House, and that Reference Committees would convene at 2:00 p.m.

Doctor Scheen read the following list of physicians who had died since the 1984 session of the House of Delegates, and it was noted from the House floor that the name of Can M. Bentley, M.D., Freeburn, should be included.

Julia G. Arrowood, Harlan
Robert B. Bergner, Louisville
Winfrey P. Blackburn, Frankfort
Maurice Bowling, Owenton
Thomas R. Brandstetter, Salem
Earl S. Buchele, Hardinsburg
William C. Buschemeyer, Sr., Louisville
Eugene A. Castle, Madisonville
James A. Clarke, Madisonville
Arnold B. Combs, Lexington
David M. Cox, Louisville
James R. Dade, Hopkinsville
William B. Davis, Louisville
Carlisle V. Dodson, Russellville
Glenn U. Dorroh, Lexington
Elwood Esham, Vanceburg
Orville T. Evans, Lexington
Michael L. Furcolow, Reedville, VA
Richard O. C. Green, Bowling Green
Herbert Hart Hagan, Louisville
Floyd B. Hay, Albany
Arthur Hellebusch, Lexington
Carl Henry, Owensboro

**Editorial Note: A tape recording was made of the two meetings of the House of Delegates, and any member who wishes to examine the transcript of these proceedings may visit the Headquarters Office and listen to the recordings.*

Ralph A. Heringhaus, Louisville
Peter H. Jones, Lexington
Robert Kidd, Louisville
Farren C. Lewis, Jackson
Dorothy Ma, Louisville
Joseph E. Maurer, Louisville
Fred P. Moberly, Lexington
Robert F. Monroe, Louisville
William R. Moore, Louisville
Martin K. Moyes, Harlan
Suhas P. Mujumdar, Middlesboro
Owen B. Murphy, Jr., Lexington
James P. Myers, Hopkinsville
Walter L. O'Nan, Henderson
Robert P. Osburn, Louisville
Lee Palmer, Louisville
Paul J. Ross, Louisville
Marjorie W. Rowntree, Louisville
James L. Salmon, Madisonville
Charles I. Schwartz, Lexington
Tod Smiser, Cynthiana
B. Presley Smith, II, Hawesville
Stanley E. Smith, Louisville
Marion C. Spradlin, Somerset
Thomas B. Stone, Mayfield
William G. Uhron, Ashland
Condit B. Van Arsdall, Jr., Harrodsburg
Nelson D. Widmer, Louisville
Charles R. Yaney, Hopkinsville
Coleman M. Young, Jr., Louisville

After the reading, the members of the House stood for a moment of silent tribute.

The Speaker announced that the Rules Committee did not have an oral report to present, but directed the Delegates' attention to a booklet outlining Rules the House should follow in its deliberations, prepared by the Rules Committee.

Adelyn Spalding, immediate past president of the Auxiliary to KMA, presented AMA-ERF checks comprised of funds the Auxiliary had raised to benefit Kentucky's medical schools. Donald R. Kmetz, M.D., Dean of the University of Louisville School of Medicine, accepted a check for $16,039.92, and Sally Mattingly, M.D. accepted a check in the amount of $9,205.91 on behalf of the University of Kentucky College of Medicine.

Charles C. Smith, Jr., M.D., KMA President, presented the Educational Achievement Award to Jacqueline Noonan, M.D., Chairperson of the Department of Pediatrics at the University of Kentucky College of Medicine. The award was accepted by Sally Mattingly, M.D. who read a telegram from Doctor Noonan thanking the Association for selecting her as the Educational Achievement Award recipient.

The Speakers introduced the officers who in turn presented their Reports. The remaining list of Reports was read, and each was assigned to a Reference Committee:

Report Number		Reference Committee
1	*Report of the President Charles C. Smith, Jr., Louisville	1
2	*Report of the President, Auxiliary to KMA Adelyn Spalding, Louisville	1
3	*Report of the President-Elect Wally O. Montgomery, Paducah	1
4	*Report of the Speakers, House of Delegates Peter C. Campbell, Jr., Louisville	1
5	*Report of the Chairman, Board of Trustees Nelson B. Rue, Bowling Green	1
6	*Report of the Secretary-Treasurer S. Randolph Scheen, Louisville	1
7	Report of the Editor A. Evan Overstreet, Louisville	1
8	Report of the Delegates to AMA Fred C. Rainey, Elizabethtown	1
9	Report of the Executive Vice President Robert G. Cox, Louisville	1
	Reports of Committees, Councils, and Boards	
10	Advisory Committee to AKMA James B. Holloway, Jr., Lexington	1
11	Kentucky Physicians Care Operating Committee Russell L. Travis, Lexington	1
12	KMA Medical Student Section Governing Council Brian Zachariah, Louisville	6
13	KMA Resident Physicians Section Kristie Jones, Louisville	6
14	KMA Hospital Medical Staff Section William B. Monnig, Erlanger	2
15	KMA Physicians Services, Inc. Nelson B. Rue, Bowling Green	1

	KMA Insurance Agency, Inc. Dwight L. Blackburn, Berea	1
	Kentucky Medical Management & Computer Operations, Inc. Richard F. Hench, Lexington	1
16	Kentucky Medical Insurance Company Ballard W. Cassady, Pikeville	1
17	KMA Physicians Financial Services, a Federal Credit Union Charles C. Smith, Jr., Louisville	1
18	Scientific Program Committee Max A. Crocker, Lexington	2
19	Scientific Exhibits Committee Richard A. Kielar, Lexington	2
20	Continuing Medical Education Committee James E. Redmon, Jr., Louisville	2
21	Council for Continuing Medical Education Nelson B. Rue, Bowling Green	2
22	Cancer Committee P. Raphael Caffrey, Lexington	2
23	Hospital Committee John D. Perrine, Lexington	2
24	Emergency Medical Care Committee E. Truman Mays, Somerset	2
25	Interspecialty Council Paul J. Parks, Bowling Green	2
26	Maternal Mortality Study Committee John W. Greene, Jr., Lexington	3
27	Committee on National Legislative Activities Fred C. Rainey, Elizabethtown	3
28	Committee on State Legislative Activities Carl Cooper, Jr., Bedford	3
29	Committee on Impaired Physicians David L. Stewart, Louisville	3
30	Committee on Care for the Elderly John C. Wright, II, Louisville	3
31	President, Blue Cross and Blue Shield G. Douglas Sutherland, Louisville	4
32	Committee on Medical Insurance and Prepayment Plans Earl P. Oliver, Scottsville	4
33	Committee on Claims and Utilization Review K. Thomas Reichard, Louisville	4
34	Coordinating Commission on Peer Review Activities J. Campbell Cantrill, Georgetown	4
35	Committee on Health Care Costs Walter R. Brewer, Lexington	4
36	Committee to Investigate Changing Trends in Medicine Charles C. Smith, Jr., Louisville	4
37	Committee on Maternal and Child Health Van R. Jenkins, Lexington	5
38	Committee on Medicare and Other Governmental Medical Programs James A. Baumgarten, Owensboro	5
39	Committee on Health Planning Frederick A. Stine, Highland Heights	5
40	Technical Advisory Committee on Physician Services (Title XIX) Harold L. Bushey, Barbourville	5
41	Committee on Community and Rural Health Don R. Stephens, Cynthiana	5
42	Committee on School Health, Physical Education and Medical Aspects of Sports R. Quin Bailey, Danville	5
43	Subcommittee on Youth Education R. Quin Bailey, Danville	5
44	Advisory Committee to CHR Nelson B. Rue, Bowling Green	5
45	Judicial Council J. Campbell Cantrill, Georgetown	6
46	Rural Kentucky Medical Scholarship Fund Henry S. Spalding, Bardstown	6
47	Physician-Attorney Liaison Committee Thomas M. Marshall, Louisville	6
48	Membership Committee Harold D. Haller, Sr., Louisville	6
49	Committee on Constitution and Bylaws Robert L. McClendon, Louisville	6
50	McDowell House Board of Managers David W. Kinnaird, Louisville	6

The Delegates recessed for a short coffee break hosted by the Jefferson County Medical Society.

New Business

New Business was referred to the House by the Speaker and referred to the Reference Committee indicated:

Resolution	Submitted By	Subject	Reference Committee
A	Harlan County Medical Society	Collateral Compensation	3
B	Harlan County Medical Society	Tort Reform	3
C	Harlan County Medical Society	System of Recompensefor Medical Misadventures	3
D	Harlan County Medical Society	Medicare Payment Areas	5
E	Resident Physicians Section	Funding for Physicians in Training	2
F	Resident Physicians Section	Residency Positions for Sale	6
G	Resident Physicians Section	Professional Liability Tort Reform	3
H	Resident Physicians Section	Preventive Health—Tobacco Consumption	6
I	Resident Physicians Section	Tobacco Advertisements	6
J	Campbell-Kenton	Fee for Services When Fulfilling Third-Party Payor Requirements	2
K	KMA Resident Physicians Section	Reduction of First-Year Medical Students in Kentucky	2
L	Jefferson County Medical Society	Health Insurance Hotline	4
M	Jefferson County Medical Society	Objectivity in Cancer Education	2
N	Jefferson County Medical Society	Automatic Direct Payment of Major Medical Benefits	4
O	Jefferson County Medical Society	Physician Manpower Committee	2
P	Pennyrile Medical Society	Equitable Liability Insurance Coverage	3
Q	Pennyrile Medical Society	Limiting Liability Awards	3
R	Robert N. McLeod, M.D.	Kentucky Medical Assistance Program Funding Priorities	5
S	Board of Trustees	Kentucky Physicians Care Program	1
T	Board of Trustees	Patient Involvement in Insurance Procedures	4
U	Harlan County Medical Society	Professional Liability	3
V	Adair County Medical Society	Kentucky Medical Management & Computer Operations	1
W	James E. Redmon, M.D.	Legal Action of the Jefferson County Academy of Family Physicians	1

Vice Speaker Thomas L. Heavern, M.D. announced the meeting locations for the Nominating Committee and for Trustee Districts electing Trustees and Alternate Trustees. He reminded the Delegates that the Nominating Committee would report at the close of the first scientific session on Tuesday morning.

The names of the members of the Nominating Committee were announced: G. Randolph Schrodt, M.D., Louisville, Chairman; James H. Brewer, M.D., Shepherdsville; Salem M. George, M.D., Lebanon; Angela Jarvis, M.D., Owensboro; and Carmel Wallace, Jr., M.D., Corbin.

Speaker Campbell adjourned the meeting at 11:45 a.m.

Second Meeting

Speaker Campbell called the second meeting of the House of Delegates to order at 6:05 p.m. on Wednesday, October 2, 1985, and asked Albert H. Joslin, M.D., Owensboro, to give the Invocation. Doctor Oliver reported a quorum was present. Doctor Campbell announced the members of the Tellers Committee: Don R. Stephens, M.D., Cynthiana; John A. Gergen, M.D., Frankfort; and Phyllis J. Corbitt, M.D., Wilmore.

Doctor Scheen recognized guests from neighboring state medical associations who had attended the Annual Meeting. Included were Lawrence E. Allen, M.D., President, Indiana State Medical Association; Herman I. Abromowitz, M.D., President, Ohio State Medical Association; David Z. Morgan, M.D., President, West Virginia State Medical Association, Morgan M. Meyer, M.D., President, Illinois State Medical Association; and Harold L. Williams, M.D., Past President, Medical Society of Virginia.

Unfinished Business

The Chairman of the Board of Trustees, Nelson B. Rue, M.D., Bowling Green, presented a motion, on behalf of the Board, that Earl P. Oliver, M.D., Scottsville, be elected to another four-year term on the KMA Judicial Council. The motion was seconded from the floor and carried.

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 1

R. Gary Marquardt, M.D., Murray
Chairman

Reference Committee No. 1 considered the following Reports and Resolutions:

1. Report of the President
2. Report of the President, Auxiliary to KMA
3. Report of the President-Elect
4. Report of the Speakers, House of Delegates
5. Report of the Chairman, Board of Trustees
6. Report of the Secretary-Treasurer
7. Report of the Editor
8. Report of the Delegates to AMA
9. Report of the Executive Vice President
10. Report of the Advisory Committee to AKMA
11. Report of the Kentucky Physicians Care Operating Committee
15. Report of KMA Physicians Services, Inc.
    KMA Insurance Agency, Inc.
    Kentucky Medical Management & Computer Operations, Inc.
16. Report of the Kentucky Medical Insurance Company
17. Report of KMA Physicians Financial Services, a Federal Credit Union

    Resolution S—Kentucky Physicians Care Program (Board of Trustees)

    Resolution V—Kentucky Medical Management & Computer Operations, Inc. (Adair County Medical Society)

    Resolution W—Legal Action of the Jefferson County Academy of Family Physicians (James E. Redmon, M.D.)

ITEMS FOR CONSENT

Reference Committee No. 1 reviewed the following items and recommends they be filed as indicated, by the consent of the House, without discussion:

1. Report of the President—filed
2. Report of the President, Auxiliary to KMA—filed
3. Report of the President-Elect—filed
4. Report of the Speakers, House of Delegates—filed
5. Report of the Chairman, Board of Trustees—filed
6. Report of the Secretary-Treasurer—filed
7. Report of the Editor—filed
8. Report of the Delegates to AMA—filed
9. Report of the Executive Vice President—filed
10. Report of the Advisory Committee to AKMA—filed
11. Report of the Kentucky Physicians Care Operating Committee—filed
15. Report of the KMA Physicians Services, Inc—filed
    KMA Insurance Agency, Inc.—filed
    Kentucky Medical Management & Computer Operations, Inc.—filed
16. Report of the Kentucky Medical Insurance Company—filed
17. Report of KMA Physicians Financial Services, a Federal Credit Union—filed

Reference Committee No. 1 takes this opportunity, on behalf of the Association, to express to the Officers, Board of Trustees, and committees reporting, since ap-

preciation for their dedication and efforts in carrying out their assigned tasks for this Associational year.

Report of the President

The aim of the President this year was to represent the profession to the public, carry the message about trends in medicine to the membership, and increase further our sensitivity to the needs of our patients as an association.

The Kentucky Physicians Care Program provided a good opportunity to tell the public by media coverage what the Kentucky Medical Association was willing to do to further the health of the people. There has been continuing interest by radio, television, and newspaper about this on a regular basis, including coverage on the CBS evening news.

The Subcommittee on Youth Education has been meeting regularly to develop a program on interdiction against drugs and alcohol in Kentucky schools in conjunction with the Department of Education. It will soon have a program ready for various levels in our schools.

I have been privileged to appear in your behalf on television many times, including "Your Government" on Channel 18 in Lexington and "The People's Business" on Kentucky Educational Television.

I also made talks before the Louisville and Jeffersontown Rotary Clubs, as well as a joint appearance before "Leadership Kentucky" with Secretary Al Austin of the Cabinet for Human Resources and John B. Clarke, General Electric Company, who served as President of the Kentucky Health Cost Coalition, Inc.

We had an excellent visit with the Kentucky Congressional Delegation in May, being accompanied by our two medical school deans, Doctor Donald Kmetz and Doctor Robin Powell. The spirit of cooperation in health matters was evident on all sides.

The visits to hospital staff meetings throughout the state were rewarding, in that I was able to speak to nonmembers, as well. But the Trustee District meetings were the heart of the banquet circuit. I have tried to speak about the health care system and its modern development in this country. I have also tried to point out our role as an association in protecting the patient's best interests in a variety of alternate delivery methods. Most of us will be involved in these systems, and we must resist the fragmentation they could produce in the profession.

With a view toward the future, we have promoted the formation of our Resident Physicians Section and enrolled about 140 new resident members. We are actively involved with the medical students at our two schools, sponsoring the Belle of Louisville ride for the two Senior classes, as well as the buses to transport the University of Kentucky students. Rosemary and I have enjoyed two three-hour sessions of "Nervous Melvin and the Mistakes" these past two years on the boat. Our sponsorship has been accomplished through our allied companies.

The expertise of our staff in amassing information and representing us to the public every day is a wonder to behold. The professionalism of our executives and the abilities of their supporting staff make one proud to be a representative of the Kentucky Medical Association.

I appreciate the help of Jim Holloway in getting me ready for the job. Nelson Rue has been an invaluable resource, as has my Vice President, Dick Hench.

I thank the Jefferson County Medical Society and our delegation for their help, as always.

It is a real pleasure to relinquish the office to a professional like Wally Montgomery with his grasp of organized medicine and its relation to society.

Rosemary and I thank you all for your many kindnesses.

Charles C. Smith, Jr., M.D.
President

Report of the President, Auxiliary to KMA

This year the Auxiliary to the Kentucky Medical Association was "Harmony." For my theme, I likened the federated auxiliary to a concert orchestra assembled for the purpose of playing one tremendous overture. The national auxiliary presented the melodies, which needed the rhythms of the counties in order to be produced. The state auxiliaries, coordinating the melodies with the rhythms, provided the harmony to give the overture its accord and congruity. AKMA, therefore, became Harmony; its members, the notes of Harmony; and I, as president, the arranger of the notes into harmony. "Nobody Said It Was Easy!" For supplying me with the advice, aid, approval, suggestions, critiques and teachings which enabled me to be a competent arranger, I am extremely indebted to Sandy Veal, my artist; to Sue Tharp, AKMA's part-time secretary; to KMA, particularly the Board of Trustees; to the KMA executive staff, especially Don Chasteen, AKMA's advisor; to Donna Young and Rick Hahn, the printing experts; to Fay

Miles; to AMAA, its officers and staff. Now, "I'm Sitting on Top of the World" "Because" the arrangement was seemingly in the right key for the majority of our 1,454 members, and "Outstanding" direction by 24 "Great Balls of Fire," by committee chairmen, evoked the "Sweetest Sounds" possible "Time After Time."

AMA-ERF's donation increased nearly $3,000, and Boyd County won the AMAA second-place award for the largest per capita contribution in the nation. Membership remained about the same in the state, but 123 new AMAA members gave Kentucky national recognition, as well as the win in a membership challenge with Kansas. One hundred in-training and medical student spouses were obtained through sponsorship by active members. A statewide Blood Donor drive was initiated to honor our doctors on March 30, 1985, proclaimed "Doctors' Day in Kentucky" by Governor Martha Layne Collins. Alas, the promise of a singing ceremony to include the presidents of AKMA and KMA was reneged on due to the governor's busy schedule. Our participation in Project Med-Vote was quite successful as we ascertained that practically all AKMA members and their families are registered to vote. The raffle of a quilt made by our McDowell House Chairman netted $1,000 for the McDowell House. County donations and individual memorials increased that figure to $10,000.

A Public Relations Chairman was added to the Board this year, and two new committees were established. The Ronald McDonald Houses Committee created an awareness program of Kentucky's two houses and an ongoing fund raiser for the support of both houses. Our own logo, approved by the McDonald Corporation, was and will be applied to aprons, T-shirts, tote bags and other salable items to raise money on the state level. This exciting committee raised over $1,500 for each house. The Widows Committee had a much more difficult birth, and participation of widows on the state level was disappointing. However, the counties have been made aware of our concern for these people and are reaching out on the local level to make them a viable part of the Auxiliary.

I stated in my installation address, "There'll be Some Changes Made" in 1984-85, and there were. In addition to new projects, innovations on existing programs were attempted. Again, some were successful, some not, and some could be "The Second Time Around." A Leadership Conference was conducted for the first time on the day following AKMA's 1984 Annual Convention. Well attended were the "Back to Basics" table discussions and the luncheon which featured Doctor and Mrs. Gordon Hyde, speakers from KMA's Impaired Physicians Committee. In an effort to promote congeniality as well as to make more physicians aware of KMA's concern for the impaired physician, doctors were invited to our Fall Board luncheon during the KMA Annual Meeting, when the entire aforementioned committee participated in a panel discussion. Not too many doctors were present but those who were, as well as the attending Auxiliary members, were highly impressed. In an attempt to have more physicians view THEIR house, a tour of McDowell House was planned for Sunday night during the KMA Meeting. Unfortunately, this was not an opportune time for the event. McDowell House Day, October 10, was thoroughly enjoyed by 60 AKMA members and a few spouses who spent a marvelous day touring McDowell House and four other Danville homes. However, the recognition of members-at-large and widows which was to occur on this day had to be omitted since none attended. A good beginning was made for involving the spouses of residents and medical students in organized medicine when the AMAA Southern Region Vice President and the AMAA Resident Spouse Consultant spoke to the members of our Kentucky groups and AKMA members at a March meeting in Lexington. The first of its kind in Kentucky! Also, a meeting of U of L, Trover, and UK spouse group presidents was, at long last, achieved.

AKMA was delighted that the KMA executive staff accepted an invitation to a cocktail party preliminary to its Pre-Convention Board Meeting at Farmington in April, and most honored that the KMA President presented greetings from KMA during its Convention Banquet. The tenure of my presidency was indeed auspicious since I was able to work not only with Doctor Smith, but also with Doctor Holloway. "One Alone" would have been a "Time to Remember," but both made it "Too Marvelous for Words!"

In addition to "committee work," serving as AKMA president involved many diverse activities. Seven newsletters were composed and sent to Board members, committee members, MALs, AMAA, southern region state presidents, the KMA Auxiliary Advisory Council and the Chairman of the KMA Board. AKMA members were addressed in each of the four issues of "Bluegrass News" and four articles were submitted to the *Journal of the KMA*. Over 500 notes were penned, more than 200 phone calls made, and just about as many re-

ceived. Tripping the light fantastic, I visited 12 counties to install officers and/or speak about AKMA. I attended the November Board meeting of the UK Medical Student Spouse Group and represented AKMA at KMA's President's Luncheon and dinner. Reports were presented quarterly to the KMA Board of Trustees and KMA members and spouses were addressed at three Trustee District Meetings.

Chicago was the site of four AMAA meetings in which the leadership enthusiastically participated. In June of 1984, I served as Kentucky's presidential delegate to the AMAA House of Delegates and the immediate past president delegate in 1985. I had the pleasure of giving AKMA's report to the AMAA House of Delegates and of receiving our membership award. In October 1984, the Leadership Conference for county president-elect was conducted and we were able to procure the attendance of five presidents-elect, which was one over our allotted number. In February 1985, the Cluster Meeting for state presidents, presidents-elect and nominated presidents-elect was conducted.

The curtain has now fallen on Harmony's final contribution to the overture of the 1984-85 orchestra, or federated auxiliary. Performing harmony is even more difficult than arranging it. The blending of notes into melodic chords is arrived at only when the notes are in tone with each other. "It Was a VERY Good Year!" Harmony was created due to the desire, cooperation, enthusiasm, practice and hard work of all the sharp notes in AKMA, and the performers did become "The Talk of the Town(s)." How proud I am to have been able to say, " 'They're Playing My Song.' "

Adelyn Spalding
President

Report of the President-Elect

The office of President-Elect of KMA affords a year to develop ideas, goals, and watch the overall function of the Association. Each officer, Trustee, committee member, and all of the staff have shown through their diligence that KMA is trying to cope with and respond to every problem of the Kentucky physician in his earnest effort to provide affordable quality medical care. One of the prime examples of pride in the Association has been the Kentucky Physicians Care program approved by the House of Delegates at the 1984 Annual Meeting. The assessment of this innovative program will be presented to the House for consideration at this Annual Meeting.

The 1985-86 Associational year will bring many old concerns, as well as new challenges. Perhaps foremost is the ever-increasing price of medical liability insurance. Those of us in practice for more than 10 years remember the hours of labor in seeing a bill pass the Kentucky General Assembly for malpractice relief, only to see it become void in the court system due to the interpretation of the Constitution of Kentucky. Your State Legislative Committee has worked diligently on this matter, and will be representing your views in Frankfort. However, remember that there will be a multitude of other legislative issues that must be addressed, which will be of great importance to KMA.

Following examples of the AMA, our House has inaugurated three new sections which will become more functional in this Associational year: the Hospital Medical Staff Section, Medical Student Section, and Resident Physicians Section. Please be assured that your officers will be supporting these sections in every way possible to help them bring their special problems and concerns before the entire Association. Also, of much interest to the President-Elect is the Report of the Committee to Investigate Changing Trends in Medicine (No. 36). This Association must represent all physicians in Kentucky, including those in areas other than the traditional fee-for-service group. Therefore, every effort should be made to seek input from those physicians in these "alternate delivery systems." Perhaps another committee or section of KMA should be instituted for such a purpose.

The Association will have to focus this year on the Medicaid problem in the Commonwealth and the recent cutbacks authorized by the Secretary for Human Resources. The report of a committee represented by KMA President Charles Smith will be available in December. Also your National Legislative Committee will be focusing more on "Key-Person" input to your Congressmen in Washington. Our continuing dialogue with the Kentucky Hospital Association will be an advantage in seeking a common goal of health care to our citizens.

In writing this report, areas which you may consider more significant may have been omitted. However, please be assured of my efforts on your behalf and of my concerns. Let your officers, Trustees, and all the family of KMA hear from you. The honor of being President of this Association will be tempered with the responsibility and work necessary to represent you.

Wally O. Montgomery, M.D.
President-Elect

Report of the Speakers, House of Delegates

Your Speakers anticipate productive meetings of the House of Delegates. Our primary commitment is to ensure an open forum for a full and thoughtful discussion of all items and a helpful exchange of ideas.

Enclosed in your packet are some items which will prove helpful to you in your deliberations. First is a copy of the Rules Booklet which provides standing rules of the House. This complements the Constitution and Bylaws, which is our basic operating document. In addition, there are "Instructions to Delegates" to provide you with operating procedures and, finally, a guide on writing Resolutions. We would urge authors of Resolutions to submit them on a timely basis.

As in the past, some actions dictated by the House require the expenditure of monies which have not otherwise been budgeted. In those incidences, fiscal notes should be attached to reports and Resolutions by the author. To help in the fiscal operation of the Association, your Speakers may direct fiscal note attention on some items.

No new rules have been proposed this year, but your Speakers, as well as the members of the Rules Committee, will be available in the event that a ruling is suggested. The Speakers will likewise be available to all Delegates throughout the session for consultation and to provide any assistance that may be requested.

This year, again, late Resolutions will be available on Sunday in Room 318 (temporary headquarters) of the Galt House West.

Your Speakers would ask you to note that Reference Committee No. 3, meeting in the King's Head Room on the third floor of the Galt House West at 2:00 p.m., will go into special session at 3:00 p.m. to discuss liability issues exclusively, so that all Delegates may have an opportunity to attend.

We urge your attention to all reports and Resolutions and appreciate your confidence in selecting us to serve you.

Peter C. Campbell, Jr., M.D., Speaker
Thomas L. Heavern, M.D., Vice Speaker

Report of the Chairman, Board of Trustees

The 1984-85 Associational year has been an exciting, yet often hectic year. We started the year with the annual Officer-Staff Conference to implement House of Delegates reports and recommendations. The Kentucky Physicians Care (KPC) Program occupied considerable time. Under the leadership of Russell Travis and the KPC Operating Committee, the program was off and running on January 2, 1985, as designated by the KMA House of Delegates.

We were extremely pleased with the excellent turnout at the March Socioeconomic Conference in Owensboro. The KMA is grateful for the Kentucky Peer Review Organization's cooperation by contributing honoraria and travel expenses for speakers. Over 225 physicians, spouses, and others attended the highly successful conference on the transition in medicine. When you combine the Annual Meeting, Socioeconomic Conference, Emergency Seminar, Starting Your Practice Workshops, and other meetings, over 3,000 people registered at conferences sponsored by KMA.

The Board of Trustees has made considerable effort to represent physicians on all levels. The leadership, at the request of the House of Delegates, intensified its communication and relationship with the Kentucky Hospital Association. We instituted more formal meetings with the KHA's leadership and cooperated with them on several issues of mutual concern. Our conversations with them have been candid, and both groups have benefited from the discourse. With the Kentucky General Assembly convening in January, 1986, and the expectation that professional liability legislation will be introduced, cooperation will be essential during the difficult days of the legislative session.

We also increased our communication with other allied groups, and staff continued its quarterly meeting with hospital, pharmacy, and dental association executives. While KMA has met periodically with these groups, I feel the relationship between the medical and nursing professions continues to drift. Medicine needs to rebridge and strengthen its relationship with the nursing profession. Maintaining quality of care and reducing potential for malpractice should weigh heavily in our decision on future relationships with the nursing profession.

Officers and staff are carefully monitoring various government agencies and any other meetings which include health items on the agenda. The General Assembly Interim Committees have continued their work, and we have closely monitored their activities. In addition, we attended all open meetings of the Board of Medical Licensure, Kentucky Peer Review Organization, Medicaid and Medicare Advisory Councils, and the State Health Planning Committees. We continue to present either oral or written comments to these Boards on issues relating to the profession and our patients.

The malpractice problem continued to build and overshadowed most of our activities. The Ad Hoc Committee on Professional Liability Insurance, which is a joint KMA-KMIC committee, met to study malpractice and offer recommendations. The Committee has been expanded to include representatives of all specialty designations and regions of Kentucky. This is not an issue which a few selected people can resolve. Broad-based agreement, especially within the profession, is crucial and may ultimately determine our success or failure in efforts to resolve the crisis. Past experience has shown that the difficulty of dealing with the Legislature, trial attorneys, and a concerned public mandates cohesion within the profession.

KMA subsidiary and affiliate companies have fared relatively well during the year and continue to provide services to our members. Each company has provided an annual report to the House of Delegates outlining its 1984-85 activities. As noted, Kentucky Medical Management & Computer Operations (KMCO) merged with Physicians Administrative Corporation of Ohio, a subsidiary of the Ohio State Medical Association. The companies merged in order to consolidate resources and infuse necessary capital to continue expansion of KMCO services.

The prologue to the Board of Trustees Report only briefly describes the major activities of the Association. Reports from the various committees attest to the activities of the Association during the year. We certainly appreciate the committee members' contributions and their commitment to the Association. Members of the Board of Trustees, without exception, have performed their duties well and deserve recognition for their unselfish service. President Charles C. Smith has completed an exceptional year and will long be remembered for his progressive leadership. As you read the highlights of each Board Meeting, note the various activities of the Board and the difficult decisions the members faced.

Each year a report on the Legal Trust Fund is included in the Chairman's report. During the last Associational year, $20,000 was paid out of the Fund, and the current balance is $78,121.22.

Summary of Board Meetings

First Meeting, September 20, 1984

Acting as Temporary Chairman, KMA Secretary-Treasurer, S. Randolph Scheen, M.D., introduced the newly elected members of the Board and the new Officers: Wally O. Montgomery, M.D., Paducah, President-Elect; Richard F. Hench, M.D., Lexington, Vice President; Russell L. Travis, M.D., Lexington, Delegate to the AMA; William B. Monnig, M.D., Erlanger, Trustee, Eighth District; and Emanuel H. Radar, M.D., Pineville, Trustee, Fifteenth District.

The Board elected the Executive Committee members to serve with the President, President-Elect, Vice President, and Secretary-Treasurer for the 1984-85 Associational year. Nelson B. Rue, M.D., Bowling Green, was appointed Chairman of the Board, and Henry R. Bell, M.D., Elkton, was appointed Vice Chairman. Danny M. Clark, M.D., Somerset, and Garner E. Robinson, M.D., Ashland, were also named to the Executive Committee as Trustees at large.

It was noted that the KMA Executive Committee members also serve as the Board of Directors of KMA Physicians Services, Inc. (a holding company).

The Board members made changes to the Kentucky Foundation for Medical Care Board of Directors in accordance with KFMC's Bylaws, and approved KMA committees for the 1984-85 Associational year.

A decision was made to hold the 1985 Annual Meeting at the Galt House in Louisville.

Second Meeting, December 12-13, 1984

The KMA Board of Trustees met in regular session on Wednesday and Thursday, December 12-13, 1984, at the KMA Headquarters Building.

The President, Secretary-Treasurer, Senior Delegate to the AMA, and President of the Auxiliary presented reports to the Board, along with representatives of the Kentucky Medical Insurance Company; KMA Insurance Agency, Inc.; Kentucky Medical Management & Computer Operations; KMA Physicians Financial Services, a Federal Credit Union; and the State Board of Medical Licensure.

A member of the Committee on Impaired Physicians reported the Committee is establishing guidelines for a Benevolent Fund approved by the 1984 House of Delegates to provide loans to physicians experiencing temporary financial difficulty. A member of the Committee on Medical Insurance and Prepayment Plans reported on Blue Cross and Blue Shield's proposal for a rate increase in the KMA members' Blue Cross and Blue Shield group plan, and recommended that the increase be accepted. The Board accepted the recommendation, but asked the Committee to prepare a report on the reasons for continued increases.

The Board approved BCBS Diagnostic Imaging

Guidelines which had been reviewed by the Interspecialty Council, and appointed Charles C. Smith, Jr., M.D., Louisville, as Key Contact for Senator Mitch McConnell, and asked the Quick Action Committee to finalize an appointment for Congressman Greg Perkins.

It was reported that the hotline/referral service for indigent patients would begin operation on January 2, 1985, and the Board authorized the Quick Action Committee to obtain Association Professional Liability Insurance to protect KMA Officers, Trustees, committee members, and staff.

The Board approved plans to include KMA Trustees in membership recruitment efforts, endorsed a pilot program proposed by the Cabinet for Human Resources to replace Medicaid for selected Kentucky residents, and adopted Constitution and Bylaws for the Hospital Medical Staff Section and Resident Physicians Section, resulting in the recognition of both Sections as official adjuncts to the Kentucky Medical Association.

To avoid conflicting with religious holidays, the Board changed the dates of the 1985 Annual Meeting to September 30 through October 3, and noted that the meeting would be held at the Galt House in Louisville.

In further action, the Board appointed an Ad Hoc Committee on Professional Liability Insurance to parallel a similar KMIC Committee, and names were selected for appointment to the Kentucky Health Care Coalition and the Athletic Trainers Advisory Council, a Governor-appointed body.

The Chairman set the next meeting of the Board of Trustees for April 17-18 in Louisville.

Third Meeting, April 17-18, 1985

The KMA Board of Trustees met in regular session on April 17-18, 1985, in Louisville.

The President, President of the Auxiliary, and Secretary-Treasurer gave reports, as well as representatives of the Kentucky Board of Medical Licensure, Kentucky Peer Review Organization, and Cabinet for Human Resources.

The Board referred a request for Legal Trust Fund assistance to the Executive Committee for action, and accepted a dividend check of $10,000 from the KMA Insurance Agency to KMA Physicians Services, Inc. (holding company).

The Board members heard a lengthy report on the activities of Kentucky Medical Management & Computer Operations, Inc., and directed that the company be sold or merged with another existing company. The manager of KMA Physicians Financial Services, a Federal Credit Union, reported that the assets of the credit union had surpassed the $6 million mark. The Board members reviewed and adopted the 1985-86 KMA Budget, and approved guidelines for the operation of the Benevolent Fund as drafted by the Committee on Impaired Physicians.

Nominees were finalized for Governor-appointed councils as well as for the KMIC and KEMPAC Boards of Directors. The Board authorized expenditure of $21,000 for analysis of data generated by the Kentucky Physicians Care Program since January 2, 1985. The Board also heard reports from the Hospital Committee, Membership Committee, Committee on Community and Rural Health, Committee on Medical Insurance and Prepayment Plans, and the Ad Hoc Committee on Professional Liability Insurance.

Plans were approved for a dinner-dance to be held during the 1985 Annual Meeting to benefit the McDowell House, and final plans for the 1985 Washington Dinner were reviewed. It was noted that Leah Dickstein, M.D., Louisville, had been named as a Consultant to the Journal Editorial Board.

The Board Chairman brought a request from the Registrar of Vital Statistics to the Board's attention encouraging prompt signature of death certificates, and an update was given on activity following KMIC's development of guidelines for family practitioners performing obstetrics.

The next meeting of the Board was scheduled for August 7-8, 1985, in Louisville.

Fourth Meeting, August 7-8, 1985

The fourth regular session of the Board of Trustees was held on August 7 and 8, 1985. Customary reports were given by the President, Secretary-Treasurer, and Senior Delegate to the AMA. Also appearing before the Board for presentations were the Presidents of KPRO and the Board of Medical Licensure.

The Commissioner for Health Services reported that plans are underway to seek funds for a program to help finance health care for the medically indigent (those above Medicaid income levels but below poverty guidelines) through county health departments. Health departments would contract with physicians, clinics, etc, to provide the service if it is not otherwise available. This preliminary presentation will be reviewed in more detail by KMA as the proposal is reduced to writing and made available to the Board.

The Chairman reported that Kentucky Medical Management & Computer Operations had been merged with

its sister organization, Physicians Administrative Corporation of Ohio (PACO) on June 1, 1985. Updates were given on changes in the Kentucky Medicaid Program, the Medicare Program, and on the Kentucky Physicians Care Hotline/Referral System.

The Board members approved recommendations in the CME accreditation process made by the CME Committee to meet the requirements of the ACCME; appointed Timothy Costich, M.D., Lexington, to a Steering Committee of the Kentucky State Seat Belt Coalition; and reappointed all current *Journal* Editors to another two-year term.

The Board members then directed their attention to all committee reports being presented to the House of Delegates. Final Plans for the 1985 Annual Meeting were discussed, including the First Annual McDowell/Crawford Ball to be held on September 29, 1985.

The next meeting was scheduled for Sunday, September 29, at the Galt House in Louisville.

Executive Committee

The Executive Committee held six meetings during the Associational year to fulfill its role of conducting the Association's business and acting for the Board of Trustees between its meetings. This is a dedicated group of Officers and Trustees who meet to decide day-to-day policy matters, often conferring by telephone conference call. The Board of Trustees elects the Executive Committee annually, and the Committee is composed of four Trustees (two of whom serve as the Chairman and Vice Chairman), the President, President-Elect, Vice President, and Secretary-Treasurer.

The Executive Committee expedites the Association's business by meeting on call, and its members are to be commended for the time and efforts they devote to KMA.

In addition, four of these members (President, President-Elect, Board Chairman and Secretary-Treasurer) serve as the Quick Action Committee. They meet frequently, both in person and by telephone, to finalize matters of an urgent nature. The Committee meets on a weekly basis during the Kentucky General Assembly.

Ad Hoc Committees

The Board appointed three ad hoc committees this year: the Ad Hoc Committee on a Socioeconomic Conference; the Ad Hoc Committee on Long-Range Planning; and the Ad Hoc Committee on Professional Liability Insurance. Their reports are as follows.

Ad Hoc Committee on a Socioeconomic Conference

The Ad Hoc Committee met on one occasion to select the meeting site, topics, and speakers. The theme, "Symbiosis—Joint Survival in a Competitive Medical Environment," was selected. The general purpose of the program was to provide the practicing physician with tools and knowledge to meet the challenges of the future.

The Conference was conducted in Owensboro at the Executive Inn Rivermont and attracted a record crowd of 225 physicians, spouses, and other medical personnel. Those in attendance were complimentary of the meeting and generally recommended that KMA continue the program.

On behalf of the Committee, Board of Trustees, and the entire KMA membership, we gratefully acknowledge the support of the Kentucky Peer Review Organization. Participation by Stuart Graves, M.D., President, and Chief Executive Officer, Paul Osborne, contributed greatly to the overall success of the meeting. KPRO's generous grant provided funds for speaker honoraria and travel expenses, and we appreciate its continuing cosponsorship with KMA.

Ad Hoc Committee on Long-Range Planning

The Board of Trustees, at its reorganizational meeting on September 20, 1984, appointed an Ad Hoc Committee on Long-Range Planning to determine space needs for the Association and its related entities. At the time of the committee appointment, the second addition to the Headquarters office, completed on June 1, 1984, had been filled to capacity.

The Committee projected space needs for the companies occupying the building; ie, KMA, KEMPAC, KMA Insurance Agency, KMA Physicians Financial Services, and the Kentucky Board of Medical Licensure, and determined that the number of staff members of the various companies would increase steadily over the next several years.

While the search for additional space was being studied, the management of the credit union combined its two Louisville offices into its Medical Towers location, and the Board of Medical Licensure moved its office to the Mall Office Building in Louisville. The exit of these two organizations left suitable space for immediate expansion of the other occupants, and the Board of Trustees directed that plans to acquire additional space be suspended.

Ad Hoc Committee on Professional Liability Insurance

The Ad Hoc Committee on Professional Liability Insurance met five times, twice after it was expanded to include representation from specialty groups and appropriate geographic distribution. The Board considered the Ad Hoc Committee report on August 8 but felt that sufficient time was not available to finalize recommendations to the House of Delegates.

The Committee's findings were referred to the Executive Committee with the charge of proposing specific recommendations on which the Board could act on September 29, before the opening meeting of the House of Delegates the following day.

The Delegates' folder contains a separate professional liability insurance packet with background material relating to the Ad Hoc Committee's work, and will hopefully also contain a draft of Special Report A on Professional Liability Insurance. Special Report A cannot be presented in its final form until the Board acts on it on September 29.

A special thanks goes to this hard-working Committee and to its Chairman, Carl Cooper, Jr., M.D., Bedford.

I thank the other Board members and staff who have assisted me in my duties this year. On behalf of my fellow Board members, I thank each of you for your confidence. It has been an honor to serve and to represent the physicians of Kentucky.

Nelson B. Rue, M.D.
Chairman

Report of the Secretary-Treasurer

It has been my privilege to complete another year of service to the Association as your Secretary-Treasurer. I am pleased to report a continued strong fiscal posture for our KMA, in spite of lower dividend income and the problems of inflation and fixed cost amortization that we all face individually.

For a more detailed address of our financial situation, I would direct your attention to the report of the auditor. I will be pleased to discuss any items contained in the audit report, and will be available for discussions at any time.

The reports and Resolutions before you provide a very adequate description of all the things your Association has been involved in this year, and a review of them shows that some significant events occurred, some growing trends have bee·n identified, and efforts have taken place to address many of the critical needs of the profession.

It is gratifying that KMA continues to play a focal role in addressing our professional needs through such activities as the Emergency Medical Care Seminar, the Socioeconomic Conference held in Owensboro in March, the Washington Dinner, and smaller, informal seminars such as those on practice management and financial management.

Likewise, KMA came to grips with specific critical issues, such as the liability problem, through a joint committee with the Kentucky Medical Insurance Company, and legislation on physicians assistants, through a joint committee with the Board of Medical Licensure.

Major changes in medical care delivery and financing were considered by the Medicare Committee and the National Legislative Committee by reviewing the Medicare Program; by the Technical Advisory Committee in dealing with Medicaid; and by the Trends Committee, which closely considered health maintenance organization and preferred provider organization activities in our state.

Likewise, the Trends Committee has considered and recommended actions on the growing role of women in medicine and, this year, the Medical Student Section and Resident Physicians Section became actively involved in the special concerns of those two groups.

All these activities serve to point out the vigorous and aggressive steps the Association is taking on behalf of the profession. These steps serve well to solidify the role of KMA as the key organization in representing Kentucky physicians. These efforts also point out the countless hours of work by our concerned and committed members who are owed a great debt of thanks, as is your Board of Trustees.

I sincerely appreciate my role in all these efforts and would like to thank you for the opportunity to serve in this capacity.

S. Randolph Scheen, M.D.
Secretary-Treasurer

Report of the Editor

As Editor of the *Journal of KMA*, I would like to recognize the members of the Editorial Board for their time and interest devoted to reviewing the numerous articles submitted for publication. The monthly meetings of the Board require advance preparation by each editor, and each editor is required to submit two editorials a year.

I would like to extend a special thanks to Paul C. Grider, Jr., M.D., Scientific Editor, for his effort in preparing critiques of each scientific article submitted to the *Journal*, and to Stephen Z. Smith, M.D., Assistant Scientific Editor, for his excellent work as Book Review Editor.

The *Journal* will be featuring a new section in upcoming months. KMA statistics show that women physicians are joining medical associations at a greater rate than any other particular segment of the physician population. In order to encourage their participation and address this issue, a women physicians' section has been developed. It is my pleasure to announce that Leah J. Dickstein, M.D., has been appointed consultant to the Editorial Board and will be serving as writer and advisor. Doctor Dickstein is Associate Dean for Student Affairs at the University of Louisville and a founding member of the Kentucky Chapter, American Medical Women's Association.

The continuing goal of the *Journal* is to provide a high caliber scientific publication and a means for individual Kentucky physicians to share their clinical experience with others through publication of their work. While we encourage physicians to write and submit articles for publication, it is important to thank the University of Kentucky and University of Louisville Medical Schools for their continued contributions to the Grand Rounds section of the *Journal*. Each school is to be commended for its effort.

The *Journal* is the Association vehicle for scientific information, Association news and socioeconomic news. We urge your participation through original articles, Letters to the Editor, and Trustee Reports.

In closing, I want to again give special thanks to the Editorial Board for its dedication.

A. Evan Overstreet, M.D.
Editor

Report of the Delegates to AMA

Your AMA Delegation has continued its active participation in the affairs of the AMA House of Delegates this year at the Interim and Annual Meetings of that body, through attendance at all of the KMA Board meetings held throughout the year, and has held two separate meetings as a committee to consider the most efficient ways of fulfilling the Delegation's responsibilities.

The Interim Meeting of the AMA House of Delegates was held on December 2-5 in Honolulu. At this meeting, more than 58 different issues were considered, including 109 separate Resolutions. Some of the highlights of that meeting were: the adoption of a Resolution calling for differentiation between procedural billing and professional billing for lab services to Medicare; equitable reimbursement for cognitive services; a very comprehensive study and recommendations on the Medicare Program; consideration of another very comprehensive study on professional liability; reaffirmation of policy calling for additional Medicare funding from taxes on alcohol and tobacco products; support for current modes of funding for graduate medical education until other satisfactory sources of funding are found; continued support for the concept of open medical staffs; development of state medical association hospital staff sections, which KMA has accomplished; incorporation of hospital medical staff; and development of guidelines for diagnosis and treatment of child abuse and neglect; a report relating to activities to enhance the public image of physicians, an AMA pilot project which will be initiated in Jefferson County; adequate reimbursement for complicated hospital stays under the Medicare prospective pricing system; and the status of the professional review organization program and the gatekeeper influence on the cost and quality of medical care.

At the Annual Meeting, held on July 16-20 in Chicago, Harrison L. Rogers, Jr., M.D., was installed as President, and John J. Coury, M.D., was selected as President-Elect.

Highlights of this meeting included the adoption of a dues increase from $345 to $375 per year to allow continuation of current key programs; a lengthy consideration of home health services abuse, where physicians are advised to carefully review signed orders; continuing review of the Medicare Program with the focus on reimbursement for appropriate preventive services; a call for the Health Care Financing Administration to seek a change in case management activities relating to laboratory and home health services; adoption of support for the concept of a health IRA to replace Medicare for certain recipients; support for direct reimbursement to physicians by Medicare, whether or not assignment is accepted; directions to conduct a survey of hospital preadmission authorization programs to determine their cost effectiveness and uniformity; a call for insurors to develop uniform information requests for preauthorization programs; support for the withholding of any Federal reimbursement to students defaulting on loan repayments; opposition to continued U.S. tobacco subsidies; a call for increased research awareness for

AIDS; and review of an ongoing task force study on liability insurance, which highlighted the problems of gynecologists and Florida physicians and opposed national legislation.

As the problems confronting medical practice become more pernicious, at the same time it becomes all the more apparent the vital role of the AMA. Given the fact that the House of Delegates is a forum which hears a variety of interests and opinions, it is gratifying to know that a strong majority of decisions made are considered and, your Delegation feels, represent the thoughtful views of most physicians.

With the plethora of issues that come before the House, it is quite a task to review, digest, and give appropriate thought to all; yet, your Delegates routinely perform this task in an excellent manner. There is a wide disparity in the effectiveness of state delegations to the AMA, but little question of the cohesive and effective work done by the Kentucky Delegation.

In this context, your Delegation has met as a committee on two occasions to consider the most effective method of operation relating to issue assignments, the logistics of reference committee coverage, expression of Kentucky's views before the House, and the most efficient use of funds budgeted.

For all their tireless efforts and long hours of work, I would like to express my personal thanks to each of the Delegates and Alternates, who are:

Wally O. Montgomery, M.D., Paducah, Alternate Delegate
Harold D. Haller, Sr., M.D., Louisville, Delegate
Kenneth P. Crawford, M.D., Louisville, Alternate Delegate
Donald C. Barton, M.D., Corbin, Delegate
Harold L. Bushey, M.D., Barbourville, Alternate Delegate
Russell L. Travis, M.D., Lexington, Delegate
Carl Cooper, Jr., M.D., Bedford, Alternate Delegate

Finally, I would like to thank the members of this House for selecting us to serve and for your ongoing support.

Fred C. Rainey, M.D.
Senior Delegate

Report of the Executive Vice President

While controversy surrounding the cost of medical care has subsided to some extent, the revolution in the financing and delivery of health care has become the major issue both from within and outside the profession. Change has had a profound impact upon old alliances, traditional delivery mechanisms and carriers, personal/professional relationships, and hospital-physician ventures. The KMA has made special provisions to inform, prepare, and provide information and tools to our membership to meet impending changes.

The Board of Trustees appointed the Committee to Investigate Changing Trends in Medicine to look into the future and project socioeconomic shifts and their impact upon physicians. Secondly, KMA has cosponsored, along with the Kentucky Peer Review organization, a biennial conference devoted to the changing environment of medicine. These conferences feature America's outstanding speakers and the program compares favorably with the AMA Leadership Conference. To assist physicians just starting their practice or those changing practices, KMA offered two seminars on "Starting Your Practice." We jointly sponsored with the Board of Medical Licensure a conference on medical-legal issues and cosponsored with AMA a teleconference on liability insurance.

I have only highlighted a few activities and have not mentioned the standing KMA committees and groups working daily within the KMA structure to prepare physicians for the future.

Changes in practice management and startling advances in medical science have placed great strain upon the traditional physician relationships and their allegiances to organized medicine. Despite the transformation in medicine, events dictate that unity within the umbrella of medicine is even more important today. Quality of medical care, educational portals to the practice of medicine, protection for the public from those who would lessen quality in the name of cost containment, and maintaining our independence require physicians to remain vigilant and maintain a common bond. As you read the various final reports, I trust you will recognize the numerous contributions KMA is making to the profession and the public. Each physician needs to reaffirm the long-standing commitment to the federation of medicine at all levels: local, state, and national.

Headquarters and Staff

This spring, the Kentucky Board of Medical Licensure relocated from the KMA headquarters office to a new location in Louisville. For over 13 years we have enjoyed a professional and businesslike relationship which has served the public well. We intend to maintain that relationship and to work with Licensure in

areas which include medical ethics, impaired physicians, regulations, legislation, and others to improve the practice of medicine and the image of physicians in Kentucky.

As our reports to the House of Delegates point out, the workload continues to build, and every member of the KMA staff has been asked to shoulder additional responsibilities, even though we're operating with fewer staff than this time two years ago. The Kentucky Physicians Care Program has required a great deal of staff time, as have the various seminars and membership programs held during the year. In addition, we are working to develop positive recommendations for addressing the medical liability crisis which has resurfaced in Kentucky. Many of you recall the 1976 crisis and KMA's efforts to bring about constructive legislation and the resulting court decision which found major components of that package unconstitutional.

Membership

KMA membership continues to grow, but the same concerns we have had with young physicians still remain. In July 1984, we added a staff member to devote full time to membership. A 2% growth in fully paid members and a 3.2% increase overall has occurred. We are seeing encouraging signs from newly licensed and practicing physicians. I am pleased to report that for the first time in several years we also show a 3.2% increase in AMA membership.

Through the auspices of the AMA, a survey of Kentucky physicians under age 40 was conducted to determine their priorities and expectations from organized medicine. The Membership Department is also making every effort to attract women physicians. We actively seek female physicians for committee assignments and leadership positions and find this being done across the spectrum of medicine. Additionally, we have instituted the KMA Resident Physicians Section and the KMA Hospital Medical Staff Section which join the Student Section in representing practically all categories of Kentucky medicine.

Finally, we continue to work with specialty group officers and leadership, especially in the area of malpractice and other issues which directly affect specific specialty groups. The KMA Membership Committee has done a yeomen's job, and we are appreciative of its efforts.

ADMINISTRATION

KMA houses staff working with KEMPAC, Auxiliary to the KMA, Rural Kentucky Medical Scholarship Fund, and the Specialty Services Department. KMA staff and officers also work closely with other KMA related groups housed in the headquarters office, including KMIC, KMA Insurance Agency, KMA Physicians Financial Services, and KMCO. As noted previously, the Board of Medical Licensure is no longer housed within headquarters. However, KMA still maintains a personal services contract with State government to administer the employee programs. The volume of meetings has increased considerably at both KMA headquarters and throughout the state. We also closely monitor legislative, bureaucratic, and public meetings when the agenda includes health or medical care items.

The Kentucky Physicians Care Program (KPC) has generated positive public relations for Kentucky physicians along with the medical-scientific developments in Louisville which gained nationwide publicity. The KMA Board of Trustees appointed a Subcommittee on Youth Education to begin study on how physicians and other groups can develop community and statewide programs on improving youth self-esteem. This program would be extremely helpful in combating chemical abuse.

In addition, a new Committee on Care for the Elderly was appointed. This Committee's responsibility will become extremely important to the medical profession. Our most vocal and effective critics come from members of the elderly and retired groups. In 1985, the Community and Rural Health Committee focused its efforts upon child abuse and exploitation and made several recommendations which are included in its Final Report. Doctor Smith's emphasis upon sensitivity to patients has been important in efforts to improve relations with the public. Louisville has been selected as the national test site to evaluate the effectiveness of AMA's physician image enhancement campaign. Through various programs generated by KMA and county medical societies, we see a trend toward a more positive image of physicians and hospitals.

The Kentucky General Assembly will be convening in January 1986. We believe that KPC's influence upon the legislators and recognition of KMA's role in serving the health needs of those without funds for medical care is a positive step forward. As you recall, we have been extremely successful in the Legislature over the past eight years. However, as we cautioned the membership after the 1984 General Assembly, "we should not as-

sume, though, that we can maintain that success level without the total commitment of our entire membership."

KMA will have two full-time staff representatives in Frankfort working on behalf of Kentucky physicians. The Frankfort office will be open daily, and leadership will be meeting weekly in Frankfort. In addition, headquarters staff will be assisting during the three months of the General Assembly.

Finances

Maintaining close liaison with the Budget Committee and Secretary-Treasurer in the financial management of the Association is an ongoing process.

After eight years with no dues increase, we are now in our second year with the increase voted in 1983. Our reserves are nearly at the desired level of a one-year operating budget but are beginning a diminishing trend. It is anticipated that we can still meet our goal of five years on the current dues structure, but we are ever mindful that a reserve fund is income producing and if allowed to become too low, can be costly in future dues requirements. We are beginning to have both a smaller reserve fund on which to rely and lower rates for our investments. With the merger of KMCO and the continued growth of the KMA Insurance Agency, we anticipate an increase in supplemental income.

I speak for the entire staff of KMA in thanking each officer and member for your cooperation and the opportunity to be of service. KMA staff and headquarters office exist to serve the membership. We want to do the best job possible, and we solicit any suggestions you may have which can improve our performance and make us more effective representatives to the public and to the profession.

Robert G. Cox
Executive Vice President

Report of the Advisory Committee to AKMA

The Advisory Committee to the Auxiliary to the Kentucky Medical Association (AKMA) composed of the KMA President and the two most immediate Past Presidents, serves as a resource committee for the Auxiliary. However, the AKMA President meets quarterly with the KMA Board of Trustees and presents timely reports on the activities and planned projects of the statewide Auxiliary. As a result, there has been no need for the Advisory Committee to hold a formal meeting.

On behalf of the Committee, I congratulate Adelyn Spalding, 1984-85 President, for a job well done. The Committee offers its full support to Jo-Ann Daus, newly elected President, and wishes her and the fine AKMA organization a full and productive year. The KMA is deeply indebted to the Auxiliary and its officers who give so willingly of their time to support the medical profession and worthwhile civic causes.

James B. Holloway, Jr., M.D.
Chairman

Report of the Kentucky Physicians Care Operating Committee

The Kentucky Physicians Care Operating Committee met nine times since the last KMA Annual Meeting, with your Chairman and staff being involved in some aspect of the program on at least a weekly, and often on a daily basis, throughout the year. KMA officers and Operating Committee members literally travelled across the entire state to discuss the program with interested parties.

These efforts were, of course, the result of Resolution A, which was adopted by the House of Delegates last year, which committed KMA to a one year period of operating a toll free telephone referral system for eligible indigent patients. The main purpose of the project was to determine whether or not there is a problem with access to health care in Kentucky due to an inability to pay, to assure that the medical needs of the people of the state are met, and to examine the deficiencies of the Kentucky Medical Assistance Program (Medicaid).

KMA is participating by providing space at the Headquarters Office, telephone equipment, supplies, furniture, computer time and equipment, postage, KMA staff supervision, and, of course, through the individual efforts of our physician members. KMA's organizational out-of-pocket expense, as of July 1, totaled $38,129.68, with an additional commitment of another $10,500 to pay for our part of the data analysis (the Foundation is paying one-half the cost). The cost of operating the hotline, to include the two toll free telephone charges and three staff persons to handle calls through July 15 was $46,632.35, which Brereton Jones paid through his contributions to the Health Care Access Foundation, even though his commitment was for one telephone line and one staff person. The hotline provided referral services to indigent patients for nonemergency care only. All emergency cases were referred to the nearest emergency room.

The program began on January 2. In the three months from the time the House took action on Resolution A

until the program was implemented, numerous meetings were held with Cabinet for Human Resources officials and other interested parties to coordinate the efforts of 1,000 eligibility workers in 120 counties to get the program underway.

The hotline office was set up at the KMA Headquarters Office in Louisville. By November, a Registered Nurse, Bonnie Taylor, joined the program as the Program Coordinator, and Sharon Hochstetler was employed to input specific information into the computerized referral system, the programming of which was contributed by Kentucky Medical Management and Computer Operations. These two people have performed in an exemplary fashion throughout their involvement with the program. They are courteous, patient, caring, and diplomatic. We are very fortunate to have had them as a part of this project, and I want to publicly thank them for an excellent job on our behalf. Initially, a third person was added to help answer telephones, but as the number of calls diminished in spring and early summer, the third position became unnecessary and was discontinued.

Physician recruitment began immediately following the House of Delegates meeting and is still ongoing. As of July 15, there were 2,178 physicians participating in Kentucky Physicians Care. A few of those are in other states bordering Kentucky, but are seeing Kentucky residents under our guidelines. A number of physicians have indicated that they would continue to see current patients at no charge, but did not wish to join Kentucky Physicians Care. We estimate that there are approximately 4,200 physicians in Kentucky who are actively practicing medicine; thus, more than half of the entire active physician population are participating in Kentucky Physicians Care, which we feel is excellent.

Members of the Operating Committee and Mr. Jones met with hospital staffs, county medical societies and specialty groups all across the state throughout the year. Dialogue with representatives of the Kentucky Pharmacists Association was initiated immediately to determine if Kentucky Physicians Care could obtain prescription items at no charge for those patients eligible for the Kentucky Physicians Care program. In early spring, representatives of the major member companies of the Pharmaceutical Manufacturers Association agreed to increase the number of samples made available to Kentucky Physicians Care participating doctors. We are most appreciative of the cooperation we received from the Kentucky Pharmacists Association and the major pharmaceutical manufacturers in that effort.

The Operating Committee met almost weekly the first two months of operation. Changes were made in the program to respond to concerns and suggestions made by participating physicians, and we feel at this point the program is running very smoothly.

Kentucky Physicians Care was initiated with wide media attention. Kentucky newspapers carried stories about the program, and there was extensive television coverage in Louisville; Lexington; Cincinnati, Ohio; Charlestown, West Virginia; Indianapolis, Indiana; Evansville, Indiana; and Nashville, Tennessee. In addition, the Kentucky Educational Television Network aired a half-hour special on the project this spring. The CBS evening news carried a feature story, and the program was mentioned in a *Wall Street Journal* article regarding indigent care. The response of the news media to the program was very positive.

Your Chairman was invited to address the Governor's Commission on Financing Health Care for the Medically Indigent which is chaired by Senator Henry Lackey. The program was also discussed with the Council on Legislation of the American Medical Association.

To be determined eligible for Kentucky Physicians Care, individuals were required to undergo a certification screening by the Cabinet for Human Resources in their local counties. Cabinet for Human Resources staff and officers were extremely helpful to the Committee in developing and implementing the certification process. There were a few minor problems at first, but most were resolved very quickly.

In the first month, 4,117 phone calls were answered through the toll free line. A monthly breakdown of calls and referrals is attached to this report. We have observed a marked decline in the number of calls coming into the hotline in late spring and early summer with 889 calls being answered in June. Other states that have run similar programs on a more limited basis found that as the amount of publicity and advertising of the program diminished, so did the number of calls. This has obviously been the case with Kentucky Physicians Care. We suspect that as patients were referred to primary care physicians, those physicians agreed to continue to see patients on an ongoing basis, so it was not necessary for the patient to continue to call the hotline for additional referrals.

As directed by the House of Delegates last year, a

study of the program was undertaken at the end of May in an effort to examine the mass of data collected in the first five months of the program's operation. The results of that study, which was jointly funded by KMA and the Health Care Access Foundation, will be appended to this report as an addendum. The study was done by the Urban Studies Institute at the University of Louisville and the Cabinet for Human Resources.

In discussing Kentucky Physicians Care, it is helpful to get some idea of the magnitude of the indigent population in this country and in Kentucky. The recent shift to a market-driven medical delivery system is making it more difficult for the uninsured to obtain care, especially nonemergency hospital care. Studies have shown hospitals that treat a high proportion of uninsured patients are generally subject to greater financial stress than other hospitals. Thus, the problem compounds itself in those particular institutions.

There is no consensus as to the magnitude of the problem of indigent care, and the data collected on it is often several years behind current circumstances. Changes are occurring so rapidly that information is quickly outdated. Even recent surveys done by different organizations disagree on the magnitude of the problem.

Budget cuts made in 1981 in funding of the Aid To Families With Dependent Children program caused 500,000 persons to become ineligible. Medicaid today covers 52% of the poor on a national basis, compared with 65% in 1976. In Kentucky, there are 343,000 Medicaid recipients out of approximately 670,000 people who fall below the federal poverty guidelines, according to the Cabinet for Human Resources.

To be eligible for Medicaid, a person must be in one of four categories: a single parent with dependent children; over 65; blind; or disabled; and meet income guidelines. For example, a family of four, meeting one or more of the categorical requirements, may not have income exceeding $325 per month (roughly 38% of the federal poverty scale) to be eligible for Medicaid.

Children constitute 40% of all poor Americans, but Medicaid covers only one-third of them. Cuts in programs providing low-cost meals for children and for poor pregnant women resulted in funds available to cover only one-third of those who are eligible.

The elderly now pay an average deductible of $400 for a hospital stay. Medicare cuts already enacted will raise the costs to beneficiaries by over $7 billion during the next five years. Proposals to limit cost-of-living allowances would increase the number of elderly below the poverty line by as much as 72%. Many people over 65 years of age in this country are financially able to purchase health care without the Medicare program. Others, however, are totally dependent on the program and may quickly become financially devastated by a lengthy illness.

The working poor are those most likely to be the victims of funding cuts and have problems with access to care. Today, one in six Americans is poor.

The federal government, in effect, pays more for health care for the middle class and the wealthy than it spends on health care for the poor. Tax deductions for employee health insurance benefits cost the government $29 billion in 1982, $8.7 billion more than the $20.3 billion Federal bill for Medicaid, according to a Commonwealth Fund paper.

Thomas Joe, a social policy analyst who was active in the Nixon administration, recently said:

> "The greatest inequity in the American Health Care System exists not between the nonpoor and the poor, but between the insured poor and the uninsured poor. Contrary to popular belief, the Federal/State Medicaid program does not provide health care coverage for the "poor." Instead, Medicaid protects only selected groups of low income individuals and families who happen to meet its arbitrary and confusing eligibility standards."

A number of state legislatures have begun to give greater attention to the issue of the medically indigent, and a poll by the National Conference of State Legislatures in 1984 revealed that care for the medically indigent would be one of four major health care issues in 1985. The other three are hospital cost containment, certificate of need, and professional liability insurance.

Many states are attempting to deal with the issue in various ways. Arkansas established an indigent health care and investment trust fund program. State-appropriated money, as well as interest earned by an investment trust fund established by the State, is used for indigent care. A council established under the program will help the state set eligibility standards and determine where the $12 million appropriated under the legislation passed by the Arkansas Legislature can best be spent for indigent health care.

In Texas, if a county spends more than 10% of its general revenue funds for indigent care, it is eligible for State assistance. Legislation provides funding for prenatal care, primary care, and patient transfers.

West Virginia recently enacted legislation to set up

an indigent health care fund to be financed by State appropriations and by a tax assessment on acute care hospitals. State and Federal hospitals are exempt. The tax assessment is based on a ratio of Medicaid revenues to the hospitals' net payment revenues.

Nevada spreads the financing of indigent care beyond the medical community to all taxpayers. Each county assesses .03 per $100 tax on the assessed value of taxable property. The revenue generated from this tax will then be placed in a fund established by each county to provide health care to the needy.

Washington State tried but did not pass indigent health care legislation. Had proposed legislation been adopted in Washington, the medically indigent would have been required to receive care through some form of alternate delivery system. Private practitioners who were not members of such systems would have been excluded from caring for indigents. In order to finance the program, there would have been a one percent business tax assessed on hospitals and privately practicing physicians. A similar proposal is being considered in Arizona, and Florida recently adopted legislation that placed a tax on hospitals to fund indigent care.

There are groups studying the issue of the indigent and Medicaid reform in Kentucky, and we must be alert for legislation that would completely finance health care for the indigent by either imposing a tax on revenue gathered from the health care industry, or by requiring physicians to provide a certain level of charity care, or care on an assigned basis, as a contingency for licensure. Bills in Massachusetts and Nevada have been introduced which tie licensure to a requirement that a physician accept Medicare or Medicaid assignment.

Hopefully, the voluntary Kentucky Physicians Care program will help preempt any sort of legislative mandate when the General Assembly meets in 1986.

While much of what the House of Delegates hoped to clarify with regard to indigent health care will be reported in the results of studies now going on, several things do seem clear at this point.

When the program was initially discussed, it was anticipated that as many as 450,000 individuals might be eligible to participate in Kentucky Physicians Care. As of this writing, 18,000 individuals have been certified as eligible, and about one-third of them have been referred through the hotline. This could mean that a number of people are simply unaware of the program, but more likely it means that the vast majority of these people are already being seen by a physician and thus felt no need for the program. Certainly, it is reasonable to expect that a number of individuals who would have been eligible to participate were simply too proud to ask.

Medicaid covers only a small percentage of the population needing assistance. Once the financial requirements for Medicaid are met, the person must meet one of four eligibility requirements in order to participate. It became obvious from the eligibility forms which were sent to us from the Cabinet for Human Resources offices that a very large number of people in Kentucky are in very desperate circumstances, but are not eligible for any governmental medical assistance.

The vast majority of services rendered through Kentucky Physicians Care were delivered by primary care physicians. As a profession, we should all be proud of the efforts our colleagues have made to uphold the high standards medicine has set for itself.

It is very difficult to include OB/GYN patients in a program such as Kentucky Physicians Care. While many physicians continued to see patients after the first visit, OB/GYN specialists were, in effect, asked to see a patient for a number of months, perform a delivery, and then do a certain amount of follow-up. Most counties have excellent programs operated through health departments which should be utilized. If the House decides to continue the program for any length of time, a separate program for maternity patients should be considered.

Some patients took unfair advantage of the program, but a great many more truly needed services and were most appreciative of the services provided.

Of the 18,000 individuals certified for KPC, most indicated that they already had access to a physician. The exact number hopefully will be reported in the results of the survey.

There are 105 hospitals participating in the KHA Fair Share program. Only 19 hospitals have chosen not to participate.

The Cabinet for Human Resources staff, and particularly, Roy Butler, Director, Division of Management & Development, and his associate, Janie Miller, were extremely helpful in making this program work and were responsible for all of the details regarding eligibility determinations. We are grateful for their participation. Secretary Austin and Social Insurance Commissioner Waddell also played key roles in the development and implementation of this project.

We are proud that the physicians of Kentucky who

agreed to participate in this program did so with great enthusiasm. Very few physicians, once enrolled in the program, dropped out later. Those who did indicated they had seen a number of indigent patients and would continue to see them, but were unable to shoulder any more of a load than they already had.

The question now before us is whether we should continue the referral system beyond December 31, 1985. A continuation of Kentucky Physicians Care will document our voluntary commitment to our patients for the public and its representatives when they convene in Frankfort early next year. On the other hand, how long can we ask physicians in the state, and particularly primary care physicians, to see new patients at no charge when many have been seen in the past by other physicians in the community regardless of their ability to pay? Budget cuts and the movement to a hotly competitive medical environment obviously make it more difficult for some patients, but individual physicians have a limit as to what they can do to deal with this societal problem.

Russell L. Travis, M.D.
Chairman

TOTAL CALLS AND REFERRALS

Week	Total Calls	Client Calls	Referrals
01/02 - 01/04	794	785	150
01/07 - 01/11	965	941	524
01/14 - 01/18	931	866	541
01/21 - 01/25	749	684	329
01/28 - 02/01	678	632	288
02/04 - 02/08	718	653	337
02/11 - 02/15	578	529	272
02/18 - 02/22	552	540	321
02/25 - 03/01	546	537	315
03/04 - 03/08	530	519	303
03/11 - 03/15	542	521	320
03/18 - 03/22	516	481	289
03/25 - 03/29	506	491	289
04/01 - 04/05	382	353	238
04/08 - 04/12	339	309	202
04/15 - 04/19	350	318	196
04/22 - 04/26	375	353	228
04/29 - 05/03	262	243	154
05/06 - 05/10	243	224	147
05/13 - 05/17	248	235	145
05/20 - 05/24	261	239	151
05/27 - 05/31	230	220	135
06/03 - 06/07	218	198	103
06/10 - 06/14	265	241	160
06/17 - 06/21	239	225	133
06/24 - 06/28	238	225	126
07/01 - 07/05	162	152	72
07/08 - 07/12	246	233	123
07/15 - 07/19	291	272	114
	12,954	12,922	6,716

Report of the KMA Physicians Services, Inc.

KMA Physicians Services, Inc. held four meetings during the past Associational year. Organized as a holding company and a wholly-owned subsidiary of the Kentucky Medical Association, it was charged by the House of Delegates "to develop and expand its involvement in services of benefit to the membership as appropriate." The KMA Executive Committee serves as the holding company's Board of Trustees.

Last year and until June 1 of this year, the KMA Insurance Agency, Inc. and the Kentucky Medical Management & Computer Operations, Inc. operated under the auspices of KMA Physicians Services, Inc. As we submit our report to you this year, only the KMA

Insurance Agency, Inc. remains under our aegis, as KMCO was merged on June 1, 1985, with the Physicians Administrative Corporation of Ohio (PACO). A subsidiary of the Ohio State Medical Association, PACO had assisted in the formation and initial operating stages of KMCO.

Following a survey of the membership, the House of Delegates authorized the establishment of KMCO in September, 1983. It was organized and began sales in January, 1984. It became apparent that to be successful, KMCO, or any computer-oriented company, would have to have a larger commitment of funds than anticipated and a longer than expected time of operating to become profitable. This appears to be the nature of such a company.

In April, the KMA Board of Trustees made a decision to try to merge or sell the company as soon as possible, while maintaining its availability to the membership and its software support to those who had bought computers. Following negotiations with a number of companies, KMCO was merged with PACO effective June 1. KMA's funding of KMCO's operation and merger was at a cost of approximately $91,000 which should be recouped through the holding company's normal operations and hopefully from future KMCO profits. Now that the merger is complete, we continue to hold 20% ownership of the company, while PACO is the 80% majority owner. In its strengthened position, KMCO continues to operate from the KMA Headquarters Building and stands ready to serve the computer and practice management needs of the membership.

Report of the KMA Insurance Agency, Inc.

The Kentucky Medical Association organized the KMA Insurance Agency, Inc. at its Annual Meeting in September, 1978. The Agency was founded to fulfill the goal of providing a marketplace for the primary insurance protection needs of Kentucky physicians. During 1984, the Agency continued to offer insurance products and services created to meet the special needs of physicians. Individual insurance policies for homeowners, automobiles, office protection, and disability income, as well as umbrella policies for extended coverage, are available through the Agency. Varied life insurance plans, including Universal Life Policy, group term, and other individual insurance products, are also available through the Agency.

Kentucky physicians are assisted in assessing and meeting their insurance needs by agents Tim Doyle, Janet Bates, Bob Proffitt and David Jaggers. These agents also provide access through other professional representatives in specialized areas for handling any insurance requirement.

Affiliate agents strategically located throughout the state have been selected by the Agency to provide the Kentucky Medical Association membership with life insurance planning services which are sponsored and approved by KMA. These affiliates further ensure the Agency's commitment to provide Kentucky physicians with the best possible service with a personal touch. The Agency deals with American Physicians Life for life insurance programs designed exclusively for physicians.

The Agency continued to grow in 1984, with approximately $298,000 in premiums as compared to $157,000 in 1983, for an increase of 190%. As a result of this expansion, the Agency added one new employee to its staff that now includes three in-house professionals who handle the day-to-day tasks of issuing and maintaining policies.

Under the guidance of Robert G. Cox, Executive Vice President of KMA, serving as president; and Morton C. Bell, Executive Vice President; the Agency will continue to provide quality products and services to Kentucky physicians by helping them meet their special insurance needs. The Agency's success and tremendous growth during the last year owes much to the interest and continued support of Kentucky physicians.

Dwight L. Blackburn, M.D., Chairman
Board of Directors

In concluding our report as the holding company, we want to thank the Boards of Directors of our two subsidiary organizations for their efforts this year.

Nelson B. Rue, M.D., Chairman
Board of Directors
KMA PHYSICIANS SERVICES, INC.

Report of the Kentucky Medical Insurance Company

The Kentucky Medical Insurance Company completed its sixth year of operation on June 1, 1985, with nearly 2,200 insureds, representing approximately 50% of the total physician liability market in Kentucky. With over $15 million in assets, KMIC's total premiums written in 1985 are projected to be in excess of $8 million.

In early 1985, the Company's Board of Directors declared an 8% stock dividend to shareholders of record as of February 15, 1985. The price of the dividend was set at $18.50 per share. These additional shares were distributed to shareholders in March 1985, along with KMIC's Annual Report for 1984.

A drastic rise in reinsurance rates in the medical liability field and continuing increases in both indemnity payments and defense costs resulted in the Board of Directors' adoption of a new rate schedule based on the recommendations of KMIC's actuarial consultants. As a part of KMIC's commitment to be direct with Kentucky physicians, the Company advised physicians of the necessity of a rate increase well in advance of the April 1 effective date for the new rates. In its written "Bulletin" about the rates, KMIC also addressed the issue of why its rates must increase and pointed out that KMIC's new rates are still competitive with those of the other major professional liability insurance carriers.

The Annual Meeting of Stockholders of KMIC was held on April 18, 1985. All the Company's Directors were reelected to the Board by shareholders' vote.

During 1985, the Company continued its campaign to convert policyholders to the Modified Claims Made Policy from the Occurrence Policy and strived to achieve a 50% conversion rate. We advocate this conversion because the Modified Claims Made Policy provides greater flexibility for physicians to manage their liability exposure in a changing legal climate, and permits KMIC to more accurately determine reserves and premium rates. The Modified Claims Made Policy is less expensive for Kentucky physicians during the early years of the policy.

In cooperation with KMIC, the KMA Insurance Agency began offering its policyholders a Flexible Annuity Plan. This Annuity Plan can be used by Modified Claims Made policyholders to accumulate funds if they should ever need to purchase "tail coverage." The Annuity Plan also provides an excellent retirement savings plan, because its interest is tax deferred and contributions are flexible.

The simultaneous increases in premiums written and the frequency and severity of claims has created the need for additions to the Company's professional staff. New KMIC staff positions include a Sales Representative and employees in the claims, policy services, and data processing areas, as well as the newly created positions of Assistant to the President and Loss Prevention Coordinator.

Despite the negative impact of increased claims on professional liability premiums, KMIC continues to provide available and sound coverage while committing itself to deal directly with reducing claims and their costs. The Company also strives to hold down the costs and losses associated with medical malpractice through its claims awareness program and statewide program to monitor and reduce legal defense costs without jeopardizing the quality of defense.

As KMIC looks to the future, we pledge to maintain our tradition of excellent service, financial strength, and quality products. We will also strive to continue to merit the confidence of Kentucky physicians who have supported KMIC since the Company's formation.

Ballard W. Cassady, M.D.
Chairman

Report of the KMA Physicians Financial Services, a Federal Credit Union

Your Credit Union enjoyed a year of strong operations and continues to serve the membership as one of the most positive and tangible member benefits the organization has to offer. Created by an act of the House of Delegates in 1982, the Credit Union began operations on March 28, 1983, and has now expanded to three locations. Those are: downtown Louisville in the Medical Towers South Building, in the office of the Fayette County Medical Society, and at the KMA Headquarters Office.

The total account balance as of July 31 neared $6 million, with over $4.2 million loaned to members. Credit card activities have been vigorous this year and constitute one of the most often used services the Credit Union provides. The Annual Percentage Rate of interest on charges is 17.4. This rate compares favorably with all other Master and Visa Card sources, with the extra benefit of no annual usage charge. Currently, over $800,000 is being cycled through credit card business.

Other popular services are Money Market and IRA accounts, as well as share draft (checking) accounts, which now pay a monthly dividend of 5½%.

The Credit Union Board is proud of the Guaranteed Student Loan Program, which is a mechanism established to ensure financing for medical education, as well as a positive means of introducing future physicians to the full range of benefits the Credit Union can provide. A further extension of services this year was making Credit Union services available to members of

the Kentucky Dental Association and their family members and employees. This move allowed the expansion of the Credit Union's financial base and added further security to operations.

The full range of financial services provided by the credit union is strongly suggested to the members of the Association, and your participation is urged. All three locations are available to serve you, and members of the credit union staff will be available throughout the Annual Meeting for your convenience.

Charles C. Smith, Jr., M.D.
Chairman, Board of Directors

END OF CONSENT CALENDAR ITEMS

Resolution S
Board of Trustees
Kentucky Physicians Care Program

WHEREAS, Kentucky Physicians Care was implemented, at the direction of the KMA House of Delegates, January 2, 1985, for a period of one year to gather data on access to health care by the indigent, and

WHEREAS, such data has been collected and analyzed on the first six months of the program, and

WHEREAS, 17,432 people have been certified eligible for the program (representing 96% of those applying for the program); 5,885 referrals have been made through the referral system; and 2,174 physicians participated in Kentucky Physicians Care through the first six months of 1985, and

WHEREAS, Kentucky Physicians Care provided needed care to one or more members of approximately 2,000 families who indicated they would not have seen a doctor had it not been for the Kentucky Physicians Care program, and

WHEREAS, there is documentation of a significant amount of care provided through Kentucky Physicians Care and the Fair Share program of the Kentucky Hospital Association, as well as by physicians choosing not to participate in Kentucky Physicians Care, and

WHEREAS, primary care appears to be the type of care needed most, and

WHEREAS, Kentucky Physicians Care has demonstrated that Kentucky physicians do care about the less fortunate members of society, and has been well received by the public and their elected representatives, now therefore be it

RESOLVED, that the Kentucky Medical Association continue the operation of Kentucky Physicians Care for one year (January 1, 1986 - December 31, 1986), contingent on:

1. Program funding being continued, as appropriate, by the Kentucky Health Care Access Foundation, with KMA contributing in-kind services as done in 1985;
2. A continuing commitment from the Cabinet for Human Resources to evaluate program applicants for eligibility, as is currently being done;
3. Some modifications being made to the program by the Kentucky Physicians Care Operating Committee which will address problems inherent in some types of delivery, such as pre- and post-natal care;
4. The Kentucky Hospital Association continuing its Fair Share program as currently operated;
5. The Kentucky Health Care Access Foundation vigorously encouraging the active participation of free-standing emergency centers, health maintenance organizations, and all other health care delivery and/or financing organizations in Kentucky Physicians Care or the Fair Share program, as may be appropriate; and
6. The Kentucky Health Care Access Foundation making Kentucky legislators aware of the plight of those ineligible for Medicaid assistance solely because they do not meet the confusing and arbitrary requirements of the Medicaid Program, while working to broaden the societal financial obligation necessary to provide care to those in need of such assistance.

Recommendations, Reference Committee No 1:

Reference Committee No. 1 reviewed Resolution S - Kentucky Physicians Care Program, introduced by the Board of Trustees. The Reference Committee heard testimony from Russell L. Travis, M.D., Chairman of the Kentucky Physicians Care Operating Committee; Brereton C. Jones, President of the Health Care Access Foundation; as well as several physicians on the program.

It is the feeling of the Committee that sincere appreciation should be expressed to the members of the Kentucky Physicians Care Operating Committee by this Association.

Reference Committee No. 1 recommends that Resolution S be adopted.

Resolution V
Adair County Medical Society
Kentucky Medical Management & Computer Operations, Inc.

WHEREAS, this Association on November 30, 1983, caused Kentucky Medical Management & Computer Operations, Inc., to be incorporated as a subsidiary of the Association, with offices in the Association's headquarters; and,

WHEREAS, said subsidiary corporation was held out to the membership of the Association as being competent to program a billing and accounting system which would meet the needs of sole practitioners and clinics, alike; and,

WHEREAS, the Association also held said corporation out to the membership as meriting confidence on the part of any member purchasing its computerized billing and accounting systems, that said corporation would correct any defects in the system; and,

WHEREAS, said corporation has been financially successful and has been sold to Blue Cross/Blue Shield of Ohio;

NOW, THEREFORE BE IT RESOLVED, that it is the sense of the House of Delegates that the Association owes a moral duty to those members who purchased computerized billing and accounting systems from Kentucky Medical Management & Computer Operations, Inc., to see to it that such members are not abandoned and that Blue Cross/Blue Shield of Ohio should be required to assume a continuing responsibility for making the equipment sold by the corporation perform the functions for which it was designed and supplied by the corporation.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution V—Kentucky Medical Management & Computer Operations, Inc., introduced by Adair County Medical Association. The Committee heard testimony regarding the problems associated with the formation, operation, and technical aspects of the company, as well as concern regarding the pending sale of KMCO to Community Mutual Insurance Company of Ohio.

The Committee recommends the following substitute wording in lieu of the existing "Resolved":

"RESOLVED, that it is the sense of the House of Delegates that the Association owes a moral duty to those members who purchased computerized billing and accounting systems from Kentucky Medical Management & Computer Operations, Inc., to see to it that such members are not abandoned and that KMA Physicians Services, Inc. negotiate to the best of its ability an agreement with Community Mutual Insurance Company to assume a continuing responsibility for making the equipment sold by the corporation perform the functions for which it was designed and supplied by the corporation."

Reference Committee No. 1 recommends that Resolution V be adopted as amended by substitution.

Resolution W
James E. Redmon, M.D.
Legal Action of the Jefferson County Academy of Family Physicians

RESOLVED, that KMA continue to support the legal actions of the Jefferson County Academy of Family Physicians in its efforts to contain the intrusion of corporate control in the practice of medicine, and be it further

RESOLVED, that this House of Delegates supports the Board of Trustees of KMA in its decisions pertaining to the use of Legal Trust Fund resources in this situation.

Recommendations, Reference Committee No. 1:

Reference Committee No. 1 reviewed Resolution W—Legal Action of the Jefferson County Academy of Family Physicians, introduced by James E. Redmon, M.D.

The Committee heard testimony from Terry Davis, M.D., as well as several members of the Board of Trustees, regarding the intrusion of corporate control into the practice of medicine. It was the feeling of the Committee that this issue warrants the support of the Kentucky Medical Association.

Reference Committee No. 1 developed the following Substitute Resolution in lieu of Resolution W:

WHEREAS, the Jefferson County Academy of Family Physicians has already received $20,000 from the Kentucky Medical Association Legal Trust Fund in support of its legal efforts to contain the intrusion of corporate control into the practice of medicine, and

WHEREAS, such Fund was established to be used to pay for legal costs and expenses of physicians or organizations involved in litigation, and

WHEREAS, the original legal action supported has been completed, and the Academy has been denied access by the court to ongoing legal action between the Certificate of Need Board and Norton-Kosair-Childrens Hospital, and

WHEREAS, such funds of the Legal Trust Fund are not unlimited, and unlimited support of a given case may deplete the Fund and therefore require assessment of KMA membership, and

WHEREAS, the Jefferson County Academy of Family Physicians has additionally expended $15,000 in legal activities in support of this issue, now therefore be it,

RESOLVED, that KMA continue to endorse the Jefferson County Academy of Family Physicians in its efforts to contain the intrusion of corporate control in the practice of medicine, and be it further

RESOLVED, that the Board of Trustees of the Kentucky Medical Association reimburse the Academy up to $15,000 for legal expenses to date with the understanding that any additional financial support in the future must be clearly within the guidelines of the Legal Trust Fund as determined by the Board of Trustees, and be it further

RESOLVED, that due to apparent conflicts in the original guidelines of the Legal Trust Fund, the Board of Trustees be requested to review those guidelines and recommend appropriate changes if necessary to the 1986 House of Delegates.

Reference Committee No. 1 recommends that Substitute Resolution W be adopted in lieu of Resolution W.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 1 as a whole.

Mr. Speaker, I want to thank the members of Reference Committee No. 1 who diligently considered the issues that were presented to us. They are: Robert R. Goodin, M.D., Louisville; Susan H. Prasher, M.D., Ashland; Thomas K. Slabaugh, M.D., Lexington, and Carmel Wallace, M.D., Corbin. I also want to personally thank Pam Haase for her assistance in the preparation of this report.

REFERENCE COMMITTEE NO. 1

R. Gary Marquardt, M.D., Murray, Chairman
Robert R. Goodin, M.D., Louisville
Susan H. Prasher, M.D., Ashland
Thomas K. Slabaugh, M.D., Lexington
Carmel Wallace, M.D., Corbin

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 2

John M. Johnstone, M.D., Richmond
Chairman

Reference Committee No. 2 considered the following Reports and Resolutions:

14. Report of the KMA Hospital Medical Staff Section
18. Report of the Science Program Committee
19. Report of the Scientific Exhibits Committee
20. Report of the Continuing Medical Education Committee **except** for the section on mandatory CME participation, page 20.2, paragraph one, and Recommendation No. 1 (referred to Reference Committee No. 3)
21. Report of the Council on Continuing Medical Education
22. Report of the Cancer Committee
23. Report of the Hospital Committee
24. Report of the Emergency Medical Care Committee
25. Report of the Interspecialty Council

Resolution E—Funding for Physicians in Training (Resident Physician's Section)

Substitute Resolution J—Fee for Services When Fulfilling Third-Party Payor Requirements (Campbell-Kenton County Medical Society)

Resolution K—Reduction of First-Year Medical Students in Kentucky (Resident Physicians Section)

Resolution M—Objectivity in Cancer Education (Jefferson County Medical Society)

Resolution O—Physician Manpower Committee (Jefferson County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 2 reviewed the following items and recommends they be filed as indicated, by the consent of the House, without discussion:

18. Report of the Scientific Program Committee – filed

19. Report of the Scientific Exhibits Committee – filed

20. Report of the Continuing Medical Education Committee, **except** for the section on mandatory CME participation, page 20.2, paragraph one, and Recommendation No. 1 (referred to Reference Committee No. 3) – filed

21. Report of the Council on Continuing Medical Education – filed

22. Report of the Cancer Committee – filed

23. Report of the Hospital Committee – filed

Report of the Scientific Program Committee

"Family in Distress" was selected by the Scientific Program Committee as the overall theme for the 1985 KMA Annual Meeting Scientific Program. Each morning session will focus on family-oriented dilemmas from the perspective of the various specialties participating in the meeting. A highlight of the meeting on Wednesday morning will be a discussion of the role of women in medicine. Your Planning Committee feels this is a most timely topic. The Committee members and specialty society presidents have gone to great lengths to bring in some of this country's outstanding speakers, and we are hopeful that the membership will find their presentations useful.

This year the entire KMA Annual Meeting will be held at the Galt House in Louisville. The Galt House is an excellent convention facility and allows us to hold the entire meeting at a single location.

The Scientific Program was planned last fall and a meeting was held in December with the presidents of the 22 specialty groups which will participate in the Annual Session to discuss their part in planning the Scientific Program. Specialty group scientific programs held in conjunction with the General Sessions have proven invaluable, and we feel provide an excellent contribution to the continuing medical education of the membership. I personally appreciate the excellent cooperation the Committee has had from the specialty societies in planning the overall meeting.

This year's Annual Meeting again received accreditation for continuing medical education from the AMA as well as several specialty societies. We urge the membership to visit the Technical Exhibit area during the course of the meeting. We feel it is a most worthwhile and meaningful adjunct to the formal Scientific Program and offers members the opportunity to discuss new products and become familiar with new equipment free from the interruptions and distractions of the office or hospital.

I am very grateful for the efforts of those who have assisted in the formation of this program, particularly the Program Committee, specialty group presidents, and program chairmen.

Suggestions for future programs are always welcomed by the Scientific Program Committee.

Max A. Crocker, M.D.
Chairman

Report of the Scientific Exhibits Committee

The Scientific Exhibits Committee conducts all activities by telephone or correspondence. Submitted exhibits are reviewed by individual members of the Committee for relevance and accuracy. In addition, we urge that exhibits be attractive and sponsors be available for discussion with attendees at the KMA Annual Meeting.

The Scientific Exhibit Area is completely filled for the 1985 Annual Meeting, and we think members will be pleased with the material offered. The exhibit area is located in a central location in the hall, and we fully expect an excellent attendance.

The Committee appreciates the opportunity to be of service and would appreciate any ideas, suggestions, or comments regarding the Scientific Exhibit Area.

Richard A. Kielar, M.D.
Chairman

Report of the Committee on Continuing Medical Education (Except for the Section on Mandatory CME Participation, and Recommendation No. 1 which were referred to Reference Committee No. 3.)

The Committee on Continuing Medical Education met twice this year. The major activity has related to the

accreditation authority granted to KMA by the Accreditation Council on Continuing Medical Education (ACCME) and the revision of the KMA program. The ACCME is a national voluntary group composed of the AMA, the American Board of Medical Specialties, the American Association of Medical Colleges, and others. It has obtained some official recognition by the Federal Government for its efforts in maintaining the quality of continuing medical education.

Because of joint actions of the principal sponsoring groups, the ACCME has gone through several changes in recent years. In past years, KMA's accreditation authorization for CME was essentially granted by AMA, but the CME responsibility was transferred to the ACCME. Coincidentally, approval of KMA's accreditation program was due for reconsideration this year.

A site visit was conducted by a review team of the ACCME, which met with the Committee at some length. Prior to this meeting, the review team had analyzed the CME accreditation records and process in detail. The team suggested several changes to the KMA program, all of which were of an administrative nature, but they required substantial revision to internal processes. Many of the changes were required by the revision of the ACCME procedures.

In a subsequent meeting, the Committee met to review and agree on the changes, which will be forwarded to the ACCME. Regardless of the revisions needed, KMA was granted continued accreditation approval for six years.

Requests for Category 1 program accreditations were few this year, and recertification of existing accreditation programs was held in abeyance because of ACCME-requested changes to the KMA program. Now that the changes have been made, however, the recertification program will be continued.

The Committee also solicited nominees this year for the Educational Achievement Award. This award is granted each year to an individual or individuals who have attained outstanding accomplishments in research, teaching, or the clinical practice of medicine. The Committee was encouraged by the number of nominations submitted, which indicated not only a widespread interest in CME, but a wide range of qualified candidates. The award will be presented during the Annual Meeting.

On behalf of the Committee, I would like to thank all the individuals and organizations who have continued to express interest and concern with the preservation of the quality of continuing medical education in the Commonwealth.

I would also like to thank each of the Committee members who have worked so hard and contributed unselfishly to our Committee.

James E. Redmon, M.D.
Chairman

Report of the Council for Continuing Medical Education

The Council for Continuing Medical Education is a complement to the Committee on Continuing Medical Education in accreditation of continuing medical education course efforts. The Council's sole responsibility is to conduct joint sponsorship of Category 1 continuing medical education.

Cosponsorship programs must meet the same qualifications of fully accredited Category 1 programs with the exception that cosponsorship is, in effect, for only single courses. To qualify for cosponsorship, program planners must include the input of Council members in the planning stages. This year nine meetings were cosponsored, most of which were conducted by statewide specialty groups.

Any group wishing to conduct Category 1 continuing medical education in cosponsorship with KMA is urged to contact the KMA Headquarters Office.

Nelson B. Rue, M.D.
Chairman

Report of the Cancer Committee

The Kentucky Medical Association Cancer Committee has not met formally during this Associational year. All members of the Committee were polled by letter to determine if a formal meeting was necessary and if specific items should be addressed. Only one member indicated an interest in meeting, and we believed that the proposed item could be handled by correspondence.

The Committee is especially concerned with the scientific, social, political, and economic climate for cancer treatment and care as it relates to the citizens and physicians of Kentucky. Kentucky is fortunate in having good local cancer treatment facilities and staff throughout the Commonwealth, as well as large regional cancer centers. Both serve important functions and should be supported.

The Committee appreciates the support of the Board

of Trustees and looks forward to serving the physicians of Kentucky.

P. Raphael Caffrey, M.D.
Chairman

Report of the Hospital Committee

The Hospital Committee met twice during this Associational year. At its initial meeting, the Committee reviewed six Resolutions referred to it, subsequent to House action, by the KMA Board of Trustees. The second meeting dealt with action taken by the KMA Board in response to the Committee's recommendations and requests.

The Committee noted that Resolution H, calling for a KMA recommendation that all hospital staffs urge their hospitals to acquire and maintain adequate levels of hospital malpractice insurance, was mailed to the chiefs of staff of each Kentucky hospital. The Committee felt such action carried out the intent of Resolution H. However, the Committee also believed that a determination should be made of what constitutes "adequate coverage." The Board, in reaction to this, determined that additional discussion with representatives of the Kentucky Medical Insurance Company and the KMA-KHA leadership group was warranted.

Resolution M called for KMA to initiate and sustain official communication with KHA, and for county medical societies to communicate with their local hospitals, in order to maintain quality patient care and jointly develop and maintain cost effective health care systems. Since KMA and KHA had agreed to continue their joint leadership meetings, the Committee felt the intent of the first portion of this Resolution was satisfied. However, in order to enhance communication at the local level, the Committee recommended to the Board of Trustees that component county medical societies be encouraged to consider hospital administrators for membership in county medical societies as "special members." At its second meeting, the Committee noted the Board had assented to its request and that a letter, over the signature of the Chairman of the Board, had been forwarded to all county society secretaries encouraging this action, but also noting that this was strictly a matter of local option.

Resolution K called for the investigation of the possibility of component county societies creating quality assurance programs and marketing them to hospitals at the local level. Resolution L was similar, calling for KMA to develop a model quality assurance plan which could be used statewide. The Committee decided to consider these Resolutions together. In response to Resolution K's directive, the Committee conducted an investigation and found the problem to be an extremely complex one. The Committee so reported to the Board, indicating that it was unable to provide a solution. Resolution L was also referred back to the Board with the indication the Committee realizes the problems in identifying what constitutes minimally adequate treatment and in dealing with physicians who provide less-than-adequate care. While the Committee felt that perhaps a model plan could be developed, such a task would require a substantial commitment of time, effort, and personnel; therefore, the Committee asked the Board for further guidance. Thereafter, the Board determined that Resolution L should be referred to the newly created KMA Hospital Medical Staff Section for its review and consideration.

Resolution O, dealing with Self-governance for Hospital Medical Staffs, mirrored, for the most part, the AMA policy statement on this issue. It also called for KMA to inform the American Medical Association of its endorsement of that organization's policy and to apprise the Kentucky Hospital Association of KMA's adoption of these policies. The Committee was informed that AMA was aware of our endorsement and that this Resolution was discussed at the joint KMA-KHA leadership meeting in January; therefore, the requirements of the Resolution had been met.

Resolution P dealt with Hospital Census, and after reviewing it, the Committee determined that the "Resolved" of the Resolution had been satisfied through discussion by the joint KMA-KHA leadership group.

The Committee, at its second meeting, considered the AMA-AHA Joint Committee Report on Hospital Medical Staffs. The Report establishes a schematic for hospital governing boards and medical staffs to use in addressing various issues and calls for decision-making on the basis of singular, consultative, shared and joint responsibilities. The Report is lengthy, and the Committee deferred consideration until the members are afforded an opportunity to review it in detail.

The Committee also reviewed the most recent developments relative to the "Baby Doe" issue, noting that Kentucky's Cabinet for Human Resources was attempting to assure that the State's hospitals comply with the most recent Federal directive. Absent compliance, the State could lose funding for its child abuse programs.

The Committee also noted that the Reagan Administration had recently approved a regulation granting

public access to statistics showing how well hospitals treat various illnesses. The regulation directs review organizations (composed of doctors and other professionals) to determine whether hospitals permit unnecessary admissions, have high death rates, follow approved professional practices or keep patients too long. The information available to the public would include statistics on admission rates, lengths of stays, medical procedures used, the prevalence of hospital-acquired infections, and death rates for different departments. No information identifying a doctor or patient by name would be released to the public.

As Chairman I would like to thank the members of the Hospital Committee for their participation and consideration of the matters referred to the Committee.

John D. Perrine, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the Hospital Medical Staff Section

The Hospital Medical Staff Section (HMSS) convened its organizational meeting on July 10, 1985, at which time the following individuals were elected to the HMSS Steering Committee:

William B. Monnig, M.D., Erlanger, Chairman
James E. Redmon, Jr., M.D., Louisville, Vice Chairman
Deborah McIntyre, M.D., Hazard, Secretary
Stuart Yeoman, M.D., Bowling Green, Delegate
Harold Bushey, M.D., Barbourville, Alternate Delegate
John Logan, III, M.D., Henderson, Member-At-Large
James E. Russell, M.D., Lexington, Member-At-Large

The Steering Committee plans to conduct a program related to issues of concern to the members of hospital medical staffs in November of this year. As Chairman, I wish to remind you that the medical staff of each hospital is eligible to select one representative to the HMSS. That representative must be a KMA member in good standing who is nominated and elected by members of an active, voting medical staff. Each representative must also be an active, voting member of the hospital staff he is elected to represent and must hold clinical privileges at that hospital.

The Steering Committee feels that participation in HMSS will afford an individual the opportunity to voice concerns about issues which surface in the hospital environment.

To that end, we welcome additional representation and would hope that you would encourage others to become involved in advance of our November program.

William B. Monnig, M.D.
Chairman

Recommendations, Reference Committee No. 2:

The Committee considered the Report of the KMA Hospital Medical Staff Section and wishes to encourage Delegate participation in the HMSS meeting in November.

Reference Committee No. 2 recommends that Report No. 14 be filed.

Report of the Emergency Medical Care Committee

The Emergency Medical Care Committee for the 15th consecutive year planned and sponsored the annual Emergency Medical Care Seminar. The two and one-half day program highlighted "Burns," OB-GYN Emergencies," and "Problems in Toxicology." In addition, the Planning Committee included a special two-day program on hazardous materials which was attended by over 50 physicians, nurses, and EMTs.

Over 500 participants completed the two and one-half day course which is accredited by the Kentucky Emergency Nurses Association, EMTs, Paramedics, American College of Emergency Physicians, KMA/AMA, and the American Academy of Family Physicians.

Special demonstrations included Decontamination of Nuclear Accident Victims, Fires and Fire Extinguishment, and Mock Disaster/Trauma Assessment.

Over 50 physicians, nurses, EMTs, and paramedics serve as faculty members on the program. Practically all speakers serve without an honorarium which allows the Planning Committee to maintain a relatively low registration fee of $20 per day which includes breakfast, lunch, and dessert breaks in the afternoon. The Committee is appreciative of those who participate on the program and provide emergency personnel the latest in up-to-date information.

The meeting is well received and grows in attendance every year. The Seminar is recognized both on a state and national level as one of the outstanding programs

on emergency medicine. Program content is presented on a high level, which attracts the most active persons in the emergency field, both in Kentucky and other states. The Committee will be reviewing critiques of the meeting and will add other programs as the need arises.

The Emergency Medical Care Committee recommends that the Emergency Medical Care Seminar be conducted in 1986 under the auspices of the Committee as the coordinating agency.

The Committee reviewed the proposed establishment of a new category of Emergency Medical Technicians (EMT-1). Members of the Committee were unanimous in opposing this concept, pointing out the confusion and the various credentials that would be required.

Emergency care in Kentucky is improving, and accessibility, new technology, and equipment are making it possible for most all Kentuckians to receive excellent emergency care.

The Chairman wishes to acknowledge the Program Planning Committee composed of Diller B. Groff, M.D., Chairman, Don Thomas, M.D., and Cheryl Westbay, R.N. for their contributions to the 1985 program.

E. Truman Mays, M.D.
Chairman

RECOMMENDATION:

1. The Emergency Medical Care Committee recommends that the Emergency Medical Care Seminar be conducted in 1986 under the auspices of the Committee as the coordinating agency.

Recommendations, Reference Committee No. 2:

The Committee considered the Report of the Emergency Medical Care Committee, along with its Recommendation relating to the presentation of an Emergency Medical Care Seminar in 1986.

Reference Committee No. 2 recommends that Report No. 24 and the Recommendation be adopted.

Report of the Interspecialty Council

The KMA Interspecialty Council is composed of 23 specialty groups which each appoint one representative to the full Council. The chairman is named by the KMA Board of Trustees. Numerous issues are presented, with the majority delegated by mail to specific specialties for comments and recommendations. Health insurance carriers occasionally request review of new procedures and guidelines, and we have found this relationship to be very effective.

Prior to the 1984 KMA Annual Meeting, Blue Cross and Blue Shield of Kentucky requested that the Interspecialty Council review proposed "Medical Necessity Guidelines on Diagnostic Imaging." Three separate mailings of the guidelines were sent to every specialty group representative, noting that if a response was not received, the Council would assume there were no objections. Approximately one-half of the groups responded, and their recommendations were forwarded to the Chairman of the KMA Board. Both the guidelines and the recommendation letter are available from KMA headquarters upon request.

The most controversial portions of the proposal were mammography, ultrasound, and CT guidelines. Objections to the mammography guidelines were raised on the national level reflecting the Council's position "that routine mammography should be continued for routine screening of selected patient groups." According to the KMA Council on Scientific Affairs, more than 80% of breast cancer cases occur in women older that 40. In addition, according to the AMA report, many early breast cancers, with a diameter of 2 cm or less and no metastases, can be detected only by mammography. Other patients with risk factors, including those with family or personal history of breast cancer, fall into the "selected group" category.

The ultrasound guidelines, as proposed, were too narrow in scope, and the Kentucky Section, American College of Obstetrics and Gynecology recommended that the guidelines be broadened to more closely resemble the National Institute of Health's recommendations as published in May, 1984.

CT scan proposals were carefully reviewed, and it was recommended that Blue Cross and Blue Shield's guideline stating that "CT Scan is not indicated in the evaluation of uncomplicated, minor headache when it presents as an isolated symptom," should be deleted. The Board of Trustees correctly noted the difficulty in many cases to determine whether a headache is complicated or uncomplicated. In addition, as noted by the emergency physicians' representative, it is not uncommon for patients with organic lesions to have minimal or perhaps even a normal neurological exam. Other objections were made and noted in the letter to the Board of Trustees.

Recently, Blue Cross and Blue Shield asked that we review cardiac care guidelines, as proposed, and these guidelines have been forwarded to the appropriate specialty groups. Their comments will be available to members upon request.

The Department of Specialty Services, operated by the KMA, continues to function and offers outstanding services to the various specialty groups at a reasonable charge. We continue to urge the organized specialty groups to utilize the office, staff, and available resources if they are considering permanent files and repository for documents, minutes, etc.

During the 1984 Kentucky General Assembly, legislation was introduced to prohibit physicians from charging patients separately for "hospital admission" or "hospital discharge" fees. The news media commented favorably upon the legislation, and KMA detected strong support among the public and legislators to pass punitive legislation prohibiting such charges.

A comprehensive admission history and physical should be accorded additional compensation separate from the daily hospital visit charge. The comprehensive history and physical fee should be included in the first day charges. Comprehensive chart review and hospital discharge-day management which may include: nursing home transfer; home health transfer; diet, exercise, and other instructions to family and patient; preparation of prescription and instructions to patient; or other time-consuming services are central to quality patient care and are appropriate services for which physicians should be compensated.

The Interspecialty Council discussed the problem at length and recognized the public's inability to understand the true purpose of these fees. The Council fully supports the concept and billing for these charges and considers them ethical so long as the patient is given a comprehensive history and physical examination, comprehensive chart review and discharge summary, or other medical care which requires extensive time. Members of the Interspecialty Council recommended that physicians educate their patients and clarify the purpose of all their fees PRIOR to the billing for charges if possible. In addition, more appropriate terms other than "admission" or "discharge," such as, "comprehensive admission history and physical" or "comprehensive chart review and hospital discharge-day management," might be utilized to clarify the purpose and nature of these charges.

This issue will, in all probability, be reintroduced in 1986, and members should be aware of this problem and address the issue with their State Representative and Senator. We urge all members and specialty groups to utilize the KMA Committee on State Legislative Activities should they be considering legislation during 1986.

We appreciate the opportunity to present this report of our year's activity.

Paul J. Parks, M.D.
Chairman

RECOMMENDATION

1. **Members of the Interspecialty Council recommend that physicians educate their patients and clarify the purpose of all their fees PRIOR to the billing for charges if possible. In addition, more appropriate terms other than "admission" or "discharge," such as, "comprehensive admission history and physical" or "comprehensive chart review and hospital discharge-day management," might be utilized to clarify the purpose and nature of these charges.**

Recommendations, Reference Committee No. 2:

The Committee considered the Report of the Interspecialty Council, along with its Recommendation for clarification of admission and discharge procedures.

Reference Committee No. 2 recommends that Report No. 25 and the Recommendation be adopted.

Resolution E
KMA Resident Physicians Section
Funding for Physicians in Training

WHEREAS, residents in Kentucky training institutions have been alerted to proposed imminent reductions in Federal funding for physicians in training, and

WHEREAS, such imminent Federal reductions will be followed by reductions of funding by other third-party payors, and

WHEREAS, these funding sources are essential to maintaining quality medical education in the state of Kentucky, and

WHEREAS, quality medical education programs are the producers of physicians for the state of Kentucky, and the future members of the Kentucky Medical Association, now therefore be it

RESOLVED, that KMA ask the Committee on Continuing Medical Education to study the funding problems of physicians in training, and be it further

RESOLVED, that, with Federal funding decisions coming as soon as October 1985, KMA assist and support the KMA-RPS in its attempt to influence legislation affecting funding for physicians in training.

Recommendations, Reference Committee No. 2:

The Committee considered Resolution E, Funding for Physicians in Training, introduced by the KMA Resident Physicians Section, and recommends that the second "Resolved" be adopted, and that the following substitute wording be adopted in place of the existing first "Resolved":

"RESOLVED, that KMA ask the Committee on Continuing Medical Education. . ." be changed to read as follows:

"RESOLVED, that the KMA House of Delegates request the Board of Trustees to study the funding problems of physicians in training. . ."

Reference Committee No. 2 recommends the adoption of Resolution E, as amended.

Substitute Resolution J
Campbell-Kenton County Medical Society
Fee for Services When Fulfilling Third-Party Payor Requirements

WHEREAS, physicians are increasingly being required by third-party payors to perform administrative services, such as obtaining preadmission and presurgical authorization, obtaining increase length-of-stay authorization, and completing additional forms before payment is approved, and

WHEREAS, this administration service allows many third-party payors to realize large profits that are advertised as saving employers up to 25% of their health care cost, and

WHEREAS, it is unrealistic to expect anyone to provide such administrative service without charge, and

WHEREAS, the **Current Opinions of the Judicial Council of the American Medical Association** [1984, Section 4.01] states, "Charging a separate and distinct fee for the incidental, administrative, nonmedical service the physician performs in securing the admission of a patient to a hospital is not in keeping with the traditions of the American Medical Association and is unethical. (IV)," now therefore be it

RESOLVED, that administrative services required by third-party and government payors now exceed what can be described as "incidental," and be it further

RESOLVED, that the Kentucky Medical Association support the concept that a physician is entitled to charge separately as fee-for-service when he/she provides, through the expenditure of time and exercise of professional judgment, administrative services on behalf of a patient in fulfilling requirements of third-party payors, and be it further

RESOLVED, that this concept be forwarded to the American Medical Association House of Delegates so that the apparent conflict with the **Current Opinions of the Judicial Council of the American Medical Association** may be resolved.

Recommendations, Reference Committee No. 2:

The Committee considered Substitute Resolution J, Fee for Services When Fulfilling Third-Party Payor Requirements, submitted by the Campbell-Kenton County Medical Society. The Committee recommends a Reference Committee Substitute Resolution J to read as follows:

WHEREAS, third-party payors increasingly require physicians to perform administrative services such as obtaining preadmission and presurgical authorization, obtaining increased length-of-stay authorization, and completing additional forms before payment is approved, and

WHEREAS, many third-party payors realize large profits from this administrative service that are advertised as saving employers up to 25 % of their health care costs, and

WHEREAS, this administrative responsibility requires time and expertise, and

WHEREAS, the Current Opinions of the Judicial Council of the American Medical Association [1984, Section 4.01] states, "Charging a separate and distinct fee for the incidental, administrative, nonmedical service the physician performs in securing the admission of a patient to a hospital is not in keeping with the traditions of the American Medical Association and is unethical. (IV)," now therefore be it

RESOLVED, that third-party and government payors require administrative services that now exceed what can be described as "incidental," and be it further

RESOLVED, that the Kentucky Medical Association support the concept that a physician is entitled to charge the third-party payor as fee-for-service when he/she provides, through the expenditure of time and exercise of professional judgment, administrative services in fulfilling requirements of third-party payors, and be it further

RESOLVED, that this concept be forwarded to the American Medical Association House of Del-

egates to encourage appropriate changes in the Current Opinions of the Judicial Council of the American Medical Association consistent with the current practice of medical care.

References Committee No. 2 recommends adoption of Reference Committee Substitute Resolution J in lieu of Substitute Resolution J.

The motion was seconded from the floor and carried with the consent of the House to add the word **since** in the first line of the first Resolved, so the amended Resolved would read,

"Resolved, that **since** third-party and government payors require. . ."

Resolution K
KMA Resident Physicians Section
Reduction of First-Year Medical Students in Kentucky

WHEREAS, there is growing concern about the issue of physician oversupply in the United States, and

WHEREAS, there is also growing concern about the availability of funds for graduate medical education, and

WHEREAS, the Commonwealth of Kentucky presently graduates more medical students than the number of available first-year training slots in the state, therefore be it

RESOLVED, that the KMA-RPS supports equitable statewide reduction in the number of entering first-year medical students, and be it further

RESOLVED, that the KMA-RPS recommends that KMA study the issues of physician oversupply and funding for graduate medical education, and be it further

RESOLVED, that the KMA-RPS recommends that KMA support reducing the number of first-year medical students in Kentucky.

Resolution O
Jefferson County Medical Society
Physician Manpower Committee

WHEREAS, the report of the Graduate Medical Education National Advisory Commission (GMENAC) indicated that U.S. Medical Schools have been created and expanded to the point that a significant oversupply of physicians will result in the current decade, and

WHEREAS, both the University of Kentucky and University of Louisville medical schools have reduced enrollment by varying degrees, now therefore be it

RESOLVED, that the Kentucky Medical Association establish a Physician Manpower Committee to work with Kentucky's two medical schools to estimate Kentucky's current and long-range needs for physician manpower, and to project the optimal level of enrollment necessary for Kentucky's two medical schools to produce sufficient numbers of physicians to meet those needs without contributing to a significant physician oversupply at the state or national level, and be it further

RESOLVED, that one charge of the Physician Manpower Committee be that it work with the Commonwealth's medical schools to encourage and to help achieve enrollment levels consistent with projected Kentucky physician manpower requirements.

Recommendations, Reference Committee No. 2:

Reference Committee No. 2 considered Resolution K, Reduction of First-Year Medical Students in Kentucky, introduced by the KMA Resident Physicians Section, and Resolution O, Physician Manpower Committee, introduced by the Jefferson County Medical Society.

The Committee recommends Substitute Resolution O as follows:

RESOLVED, that the Kentucky Medical Association establish a Physician Manpower Committee to work with Kentucky's medical schools to estimate Kentucky's current and long-range needs for physician manpower, and to project the optimal levels of enrollment of medical students and physicians in training necessary to produce sufficient physicians to meet those needs without contributing to a significant oversupply at the state or national level.

Reference Committee No. 2 recommends adoption of Substitute Resolution O in lieu of Resolution K and Resolution O.

Resolution M
Jefferson County Medical Society
Objectivity in Cancer Education

WHEREAS, physicians treating breast cancer are required by law to provide patients with an informa-

tional pamphlet prepared and distributed by the Commonwealth of Kentucky, and

WHEREAS, physicians support the provision of such information to patients, and

WHEREAS, informational material prepared by the State should not intentionally or unintentionally imply that a certain few physicians are more expert than others in treating breast cancer, and

WHEREAS, the identification of the authors not only is unnecessary, but also gives the Commonwealth's implied approval of only two medical facilities and thereby impugns the abilities of all other physicians to treat breast cancer, now therefore be it

RESOLVED, the KMA explore all avenues to accomplish deletion of authorship identity from the pamphlet, "Breast Cancer: Treatment Options," as specified in Kentucky Revised Statues 311.935.

Recommendations, Reference Committee No. 2:

Reference Committee No. 2 considered Resolution M, Objectivity in Cancer Education, introduced by the Jefferson County Medical Society, and recommends that the following "Resolved" be added:

> **RESOLVED, that the Board of Trustees be requested to refer this issue to the KMA Cancer Committee for further study and recommendations on this and any further patient education programs.**

The Committee recommends that Resolution M be adopted as amended by addition.

The motion was seconded from the floor and carried with the consent of the House to add the word **cancer** in the last line, to read, "and any further patient **cancer** education programs."

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 2 as a whole as amended.

Mr. Speaker, I would like to thank the other members of the Committee: John M. Fox, M.D., Lexington; John J. Guarnaschelli, M.D., Lousiville; Donald Neel, M.D., Owensboro; and Mark F. Pelstring, M.D., Covington, for time spent in listening to testimony and for their opinions and assistance in preparation of this Committee report. I would also like to thank our secretary, Diane Maxey.

REFERENCE COMMITTEE NO. 2

John M. Johnstone, M.D., Richmond, Chairman
John M. Fox, M.D., Lexington
John J. Guarnaschelli, M.D., Lousiville
Donald Neel, M.D., Owensboro
Mark F. Pelstring, M.D., Covington

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 3

Sally Mattingly, M.D., Lexington
Chairman

Reference Committee No. 3 considered the following Reports and Resolutions:

26. Report of the Maternal Mortality Study Committee
27. Report of the Committee on National Legislative Activities
28. Report of the Committee on State Legislative Activities
29. Report of the Committee on Impaired Physicians
30. Report of the Committee on Care for the Elderly, **except** for section on long-term care, beginning with last full sentence on first page, and ending with the first full paragraph on page 30.2 (referred to Reference Committee No. 5)

PROFESSIONAL LIABILITY ISSUES

SPECIAL REPORT A on Professional Liability Insurance (KMA Board of Trustees)

20. Report of the Committee on Continuing Medical Education, section on mandatory CME participation, page 20.2, paragraph one, and Recommendation No. 1, **only**

Resolution A—Collateral Compensation (Harlan County Medical Society)

Resolution B—Tort Reform (Harlan County Medical Society)

Resolution C—System of Recompense for Medical Misadventures (Harlan County Medical Society)

Resolution G—Professional Liability Tort Reform (Resident Physicians Section)

Resolution P—Equitable Liability Insurance Coverage (Pennyrile Medical Society)

Resolution Q—Limiting Liability Awards (Pennyrile Medical Society)

Resolution U—Professional Liability (Harlan County Medical Society)

ITEMS FOR CONSENT

Reference Committee No. 3 reviewed the following items and recommends they be filed as indicated, by the consent of the House, without discussion:

26. Report of the Maternal Mortality Study Committee—filed
27. Report of the Committee on National Legislative Activities—filed
28. Report of the Committee on State Legislative Activities—filed
29. Report of the Committee on Impaired Physicians—filed
30. Report of the Committee on Care for the Elderly, **except** for section on long-term care, beginning with last full sentence on first page, and ending with the first full paragraph on page 30.2 (referred to Reference Committee No. 5)—filed

Reference Committee No. 3 would like to express its appreciation to the authors of the reports which have been filed, for the time and effort spent in gathering this information for the House of Delegates.

Report of the Maternal Mortality Study Committee

The Maternal Mortality Study Committee met twice during this Associational year to consider matters falling within its jurisdiction. The dates of the meetings were September 18, 1984, and March 8, 1985. Both meetings lasted approximately two hours. At the meeting in September, seven cases were discussed; and at the March 1985 meeting, five cases were discussed. The accompanying tables show the disposition of the cases.

The Committee reviewed the material gathered by John Petry, M.D. from sources in Frankfort. Doctor Petry then contacted various physicians and hospitals involved. The deaths are considered at length by members of the Committee, and time is given to deliberation of etiologic factors. The attached information shows the number of deaths per year and whether they are direct or indirect obstetrical deaths. It should be stated that an indirect obstetrical death is one that would occur whether the patient was pregnant or not. Direct obstetrical death is one with factors in the pregnancy causing maternal demise. This does not necessarily impute fault on the part of the people or the institution caring for the patient.

The House of Delegates would be interested in seeing how we compare with the national picture. Attached to this Report is a table from *Williams Obstetrics*, the latest 17th edition, giving figures put forth in the section on maternal mortality. A recent report entitled "A Return to Maternal Mortality Studies: A Necessary Effort" has been published by Leon Fox. In the substance of his report, he states that in 1966, 44 states and the District of Columbia had ongoing maternal mortality committees. Since that time, however, participation in study committees has decreased. They carried out a survey and showed that in 1983 there were 33 committees in various states, including Kentucky and the District of Columbia. The majority of the recent maternal mortality studies have been conducted under the aegis of the individual state committees on maternal and child health.

In the discussion of Doctor Fox's paper, Doctor Warren Pearse, Executive Director of the American College of Obstetricians and Gynecologists, was quoted as asking the question "Maternal Mortality Studies—Time to Stop?" Doctor Pearse points out that in 1977 there were approximately 400 direct maternal deaths in the United States and approximately 75,000 fetal and neonatal deaths. He feels that the number of maternal deaths is small. They merit continuous study but not at the intensity of former years or the exclusion of perinatal mortality studies. It is the feeling of the KMA Maternal Mortality Study Committee that valuable information is obtained from the study of these cases.

At the time of this writing, three cases have been submitted for consideration and publication in the *Journal*, and one more is forthcoming. The cases that have been valuable for teaching purposes have been submitted to the *Journal* for consideration for publication.

A chart is also appended showing the maternal death rate in Kentucky and the numbers to date. In its deliberation, the Committee considers the cause of the maternal death and whether there is any one institution, physician, or locality that seems to have a repetitive problem needing further study or action. This does not seem to be the case. It is noted that there are more deaths in Fayette and Jefferson Counties, but these are

attributed to the fact that these are large population areas and, also, because there are centers that can care for high-risk obstetrical situations in these areas.

It is a great pleasure to work with and chair the Maternal Mortality Study Committee. The very diligent work of Doctor John Petry should again be acknowledged, for he spends many hours compiling the material and analyzing it for presentation to the members of the Committee.

John W. Greene, Jr., M.D.
Chairman

MATERNAL DEATHS 1980
17 Maternal Deaths

		Autopsy	
1. Indirect	Sky diving accident	No	*
2. Direct	Repeat section, possible pulmonary embolus	No	*
3. Direct	Eclampsia	No	*
4. Direct	Cardiac arrest	Yes	*
5. Direct	Cardiac arrest	No	*
6. Direct	Amniotic fluid embolus	Yes	*
7. Direct	Eclampsia	No	*
8. Direct	Hemorrhage	No	*
9. Direct	Eclampsia	Yes	*
10. Indirect	Cerebral vein thrombosis	Yes	*
11. Direct	Hemorrhage from cervical laceration	No	*
12. Direct	Cerebral vascular accident	Yes	*
13. Direct	Sickle cell crisis	No	*
14. Direct	Possible acute pulmonary embolus	No	*
15. Direct	Acute renal failure		Discussed 9/84
16. Indirect	Subarachroid hemorrhage	No	Discussed 5/85
17. Indirect	Cerebral aneurysm	No	Discussed 9/84

*Previously discussed

MATERNAL DEATHS 1981
6 Maternal Deaths

		Autopsy	
1. Indirect	Hemorrhage ruptured uterus auto accident, post mortum section done	No	*
2. Direct	Pulmonary embolus	No	*
3. Direct	Hemorrhage, ruptured ectopic pregnancy	No	*
4. Direct	Hemorrhage, ruptured cornual portion	No	*
5. Direct	Trophoblastic disease	Yes	*
6. Direct	Ruptured ectopic pregnancy	No	*

*Previously discussed

MATERNAL DEATHS 1982
12 Maternal Deaths

		Autopsy	
1. Indirect	Congenital heart disease	Yes	*
2. Direct	Cardiac arrest with Cesarean	No	*
3. Direct	Intraabdominal	Yes	*
4. Direct	Ruptured uterus	No	Discussed 9/84
5.	Not discussed yet		
6. Indirect	Pneumonia	Yes	Discussed 9/84
7. Direct	Brain stem infarction	No	*
8. Direct	Candida arrhythmia	No	Discussed 9/84
9. Direct	Congenital heart disease	No	Discussed 9/84
10. Indirect	Cystic fibrosis, chronic lung disease	No	*
11.	Not discussed yet		
12. Direct	Hyaline membrane disease associated with abruptio placenta	No	*

*Previously discussed

MATERNAL DEATHS 1983
6 Maternal Deaths

		Autopsy	
1.	Not discussed		
2.	Not discussed		
3.	Not discussed		
4. Direct	Amniotic fluid embolus	Yes	Discussed 3/84
5. Indirect	Physical trauma	Yes	Discussed 3/84
6. Direct	Sepsis, no prenatal care	No	Discussed 3/84

MATERNAL DEATHS 1984
6 Maternal Deaths

		Autopsy	
1. Indirect	Sepsis	Yes	Discussed 3/85
2.	Not discussed		
3. Direct	Ectopic pregnancy	Yes	Discussed 3/85
4.	Not discussed		
5.	Not discussed		
6.	Not discussed		

MATERNAL DEATHS—KENTUCKY		
YEAR	TOTAL DEATHS	TOTAL RATE (No./10,000)
1966	34	5.8
1967	21	3.6
1968	15	2.7
1969	17	3.0
1970	22	3.7
1971	20	3.3
1972	22	3.6
1973	16	3.0
1974	15	2.8
1975	15	2.7
1976	13	2.4
1977	13	2.1
1978	8	1.4
1979	9	
1980	17	2.9
1981	6	1.0
1982	8	2.1
1983	6	1.0
1984	6	1.0

TABLE 1-1.

MATERNAL MORTALITY IN THE UNITED STATES 1935–1982

Maternal Deaths		Rate Per 100,000 Live Births		
Year	Number	Total	White	Other
1935	12,544	582.1	530.6	945.7
1940	8,876	376.0	319.8	773.5
1945	5,668	107.2	172.1	454.8
1950	2,960	83.3	61.1	221.6
1955	1,901	47.0	32.8	130.3
1960	1,579	37.1	26.0	97.9
1965	1,189	31.6	21.0	83.7
1970	803	21.5	14.4	55.9
1975	403	12.8	9.1	29.0
1980	334	9.2	6.7	19.8
1982*	330	8.9	—	—

*Provisional.

In 1983, there were 3.61 million live births in the United States, a very slight reduction from the previous year. The fertility rate in 1983 was 66.9, also a very slight reduction.

From: WILLIAMS OBSTETRICS, 17th edition page 3, 1985.

References 1. Pritchard JA, MacDonald PC, and Gant NF: WILLIAMS OBSTETRICS, 17th Edition, Appleton-Century-Crofts/ Norwalk, Connecticut. 2. Fox LP: "A return to maternal mortality studies: A necessary effort" *Am J Obstet Gynecol*, June 15, 1985;152:4,pp 379–386. 3. Pearse WH: "Maternal mortality studies-time to stop?", *Am J Public Health* 1977;67:815. 4. Hofmeister FJ: "Mothers are still mortal," *South Med J* 1978;71:1193.

Report of the Committee on National Legislative Activities

The Committee on National Legislative Activities is composed of the Key Contact persons for each member of Kentucky's Congressional Delegation. In this capacity, the members of the Committee are called on constantly, not only to make contacts about current issues, but to maintain communications and a relationship of understanding. National legislative activities are coordinated through the KMA office, and most efforts on national issues are administered through the AMA Washington Office.

The AMA has increased its nationwide efforts to make the Key Contact system more active this year through the development of a background manual for Key Contacts, the publication of a routine newsletter on congressional matters, and the presentation of several programs addressing contact techniques and the changing political process. All these efforts have been undertaken in the face of new challenges.

It is very important that all physicians be aware of changing trends in the political scene in Washington which are the result of several forces. Currently, medicine is faced with what may well be the most significant piece of medical legislation in history, revisions to the Medicare reimbursement system. These reimbursement proposals are crucial because they will have a dramatic effect on the way medicine is practiced, will and have significantly altered the relationship between physicians and hospitals and physicians and patients, and will even influence the medical welfare of the country's population. A closer look at Washington's "new face" is in order.

Legislative and regulatory issues have become increasingly complex, and this situation is exacerbated by the awesome pressure to reduce the budget. The Department of Health and Human Services has the largest Federal agency budget and so, as a matter of fiscal priority, is a primary target for budget cuts. From a political perspective, Congress is least likely to reduce the benefits and services available or increase out-of-pocket costs of patients, so direct provider payment areas are prime targets for cuts, too.

Traditional allies no longer unhesitantly support Medicine's position, and opponents are becoming increasingly more sophisticated, even to the extent of employing professional lobbying companies. Political Action Committee (PAC) support, of course, is vital to congressional campaigns, but there are literally thou-

sands of PACs. **Single** PAC support, therefore, is not vital. The increased use by AMPAC of Independent Expenditures makes membership in KEMPAC/AMPAC very important. Also important to congressional influence is provision of campaign manpower support and **personal relationships.**

Single-issue groups continue to dilute the effectiveness of Medicine's lobbying efforts. The AMA must contend with a broad array of issues, rather than enjoying the luxury of a single concern.

Congressional outlook and makeup has changed considerably in past years. Legislative independence has become a fact. There are enough subcommittees now in operation that nearly all Congressmen have a public forum, and party affiliation is not as crucial as in the past.

Continuity of all nonmedical care delivery activities is jeopardized by the budget process. In prior years, there was essentially no congressional review of the overall budget. Appropriation bills were developed for each separate category of Federal program expenditures. However, in recent years, because of a Congressional Budget Act, both Houses of Congress have appointed Budget Committees. These Budget Committees pass resolutions which set limits on all expenditures, and then expenditures for specific categories must be "worked in." This usually occurs by requiring that the individual committees of jurisdiction allocate specific amounts of funding to standing programs.

This process makes it impossible for Congress, as a whole, to address issues individually, such as Medicare and Medicaid. Because of this new budget process, House and Senate members, in fact, are only allowed to vote for or against the entire budget, rather than for or against an individual item. All of these factors make legislative influence extremely difficult and demand an effective Key Contact program. While specific Key Contact individuals are appointed by KMA, each member should feel free and even obligated to remain in contact with his or her Congressman.

Changing trends in Washington are also reflected in the regulatory process. It is not unusual for an administrative agency to propose a regulation that accomplishes the same purpose as impending legislation, thereby avoiding legislative procedures. This is an obviously inequitable process, but one that nonetheless takes place.

Given these difficulties, the major legislative effort this year has been revision of the Medicare program, as has been mentioned. Physicians' fees were frozen in October 1984, and a category of "participating physician" was created, which required physicians to sign agreements to accept the Medicare allotment of payment for all Medicare patients. The Department of Health and Human Services was to report to Congress with projected plans for reimbursing physicians on the basis of diagnosis related groups by June of 1985. Other changes were also considered, such as reduction in payment to hospitals for graduate medical education purposes, reduction in payment universally for laboratory services, as well as the prospective payment system for hospitals.

Throughout the year, both Houses of Congress have considered these and other Medicare-related issues in terms of budget resolutions, using the process already described. The national medical lobbying effort to respond to this process has been overwhelming. Nearly continuous phone calls, correspondence, key contacts, and informal meetings with Kentucky Congressmen have been held to bolster Medicine's views. As of this writing, the proposals being considered most strongly are continuation of the physician fee freeze for another year and a reduction in graduate medical education finances.

While Medicare was the key issue this year in Congress, it was by no means the only medical matter considered. Many significant proposals were reviewed and closely monitored by KMA, which included changes in the DRG payment system for hospitals, legalizing the availability of heroin to terminal cancer patients with intractable pain, the FTC Reauthorization Act, vaccine injury compensation, and the Baby Doe issue. The Baby Doe issue, which requires hospitals, under certain circumstances, to maintain extraordinary life-saving measures for neonates with life-threatening congenital impairments, has been the subject of an arduous regulatory process and continuous legal battle. For further details on this issue, please refer to the Report of the Committee on Maternal and Child Health.

KMA's Washington Visitation and Congressional Dinner was held this year in May. Obviously, the focal issue of the visit was proposed Medicare changes, and some very useful dialogue was held. Approximately 25 KMA members and spouses were in attendance. Your elected Officers played a key and crucial role during the visitations by leading discussions and conveying KMA's concerns. They are to be commended. The attendance by Congressmen at the banquet held during the visit was not as high as in past years, primarily

because of a continuous round of voting on Medicare issues which occurred the evening of the dinner.

As Chairman, I would like to express my sincere thanks to each of the Key Contacts for all their work this year, and I would urge in the strongest terms that each member play an active role in the legislative process by keeping abreast of issues of concern, providing the KMA Headquarters with your input, and by personal contacts with your Congressmen.

Fred C. Rainey, M.D.
Chairman

Report of the Committee on State Legislative Activities

In my report to you after the 1984 Regular Session of the General Assembly, I pointed out that KMA followed 131 measures, 40 of which we were forced to actively oppose. Thirty-nine of those 40 were defeated. While that established an admirable record, I also noted that we still had to face the Legislative Interim and the 1986 Regular Session.

The Interim is over, as is a 10-day Extraordinary Session, and our 138 Senators and Representatives will soon converge on Frankfort to begin their deliberations for 1986.

That leaves us faced with the prospect of dealing, **once again**, with at least the 40 direct confrontations we encountered in 1984. It leaves us, **once again**, with the prospect of reacting to the still burgeoning desire to "rebuild the system," which exhibits itself in the ever-changing fabric of today's society.

But those are things we fully anticipated; what we did not bargain for completely was the extent to which the "medical liability crisis" would resurface and occupy our concern and attention.

An ad hoc Committee on Professional Liability Insurance was activated by the KMA Board of Trustees to assure this matter receives thorough study by a broad-based group representing the full spectrum of the medical community. That group continues to meet, and my purpose here is not to detail their recommendations or observations.

Instead, I believe it more important to reinforce another point made in my last report. Simply stated, the expenditure of the sort of political energy necessary to fight all our defensive struggles creates real problems when it comes to mounting an offensive thrust.

I make this observation not as a recalcitrant, but as a political realist. I want to see affirmative steps taken to alleviate the medical liability problem as much as anyone. But I also want the decision to pursue those affirmative measures to be a reasoned one made with full awareness of the facts and circumstances involved.

In our present environment, choices have to be based on a cost-benefit analysis. Our options are reduced to deciding whether or not the passage of particular proposals warrants the sacrifice entailed in allowing a number of bills, which might otherwise be defeated, to pass.

It is to each of you that we look for guidance in these matters. I urge your careful reflection on these difficult choices.

Carl Cooper, Jr., M.D.
Chairman

Report of the Committee on Impaired Physicians

The Committee on Impaired Physicians has met six times during the Associational year. Typically, meetings of the Committee are divided into two sessions. The first is devoted to administrative policy issues, and the second is concerned with case review.

The majority of cases the Committee has dealt with continue to relate to substance abuse. Several new cases have been identified, yet the Committee members remain convinced that there are a significant number of physicians who have not been identified.

The Committee was gratified that the House of Delegates approved the establishment of a Benevolent Fund, which the Committee had suggested. Guidelines for solicitation of monies and their disbursement were developed, and initial solicitations were begun. As of this writing, there has not been adequate time to report on the success of solicitation efforts, but they will be continued. The Kentucky Foundation for Medical Care was selected as the vehicle for collecting funds. The KFMC Board is comprised of members of the KMA Board of Trustees.

Communications were maintained with hospital chiefs of staff, administrators, and allied and other professional organizations to advertise the Committee's efforts, and notices appear routinely in the KMA *Journal* and publications of the Fayette and Jefferson County Medical Societies regarding the Committee's work.

The Committee enjoyed a close working relationship with the Board of Medical Licensure this year. An ex officio member was appointed to the Committee, and serves as a liaison between it and the Physician Review Advisory Committee of the Licensure Board. This individual provides an effective channel of communica-

tion and has been instrumental in streamlining the mutual efforts of the Impaired Physicians Committee and the Licensure Board.

When the Licensure Board instituted its annual registration, additional questions were added to the registration form which asked for information concerning treatment for substance abuse and psychological or emotional problems. The Committee, as did the KMA Board of Trustees, questioned the appropriateness of the collection of this information and urged the Licensure Board to revise the registration form. The Board has advised that the form will be changed in the future.

In further activities relating to licensure measures, the Committee learned that the AMA has developed an information dissemination system regarding licensure actions against individual physicians. Whenever a licensure action is taken, all states in which the individual is licensed are notified of the action. It is felt that this can potentially be a positive service and helpful to the Committee from the standpoint of gathering information about physicians with impairments.

Arrangements were made this year for an exhibit at the Annual Meeting, which will again be staffed by members of the Committee and the Auxiliary, and appropriate informational material is being developed to hand out to visitors.

The Committee spent a considerable amount of time this year reviewing its own operations, as well as the impaired physician programs in other states. It appears that impaired physician programs go through an evolutionary process, the steps of which are determined by experience, which has no direct relationship to chronology.

Of key importance to the effectiveness of such programs is the presence or absence of specific licensure provisions recognizing the impaired physician program and the relationship of the program with the licensing agency. True effectiveness is nearly impossible to define. Disregarding gross numbers, effectiveness can only truly be measured by length of a positive epilogue and recidivism. While Kentucky's program is not unique, it does have some unique features, and while probably not the most effective in the country, positive results are occurring. The major difficulty is that, administratively, the Committee's efforts are limited because of voluntary manpower.

Continuing review will be given to other state programs to determine applicable activities. Within the Committee's current program, more emphasis will be placed on identification of impaired physicians and closer follow up after identification is made.

A word of thanks is in order to the KMA Board of Trustees, which has unfailingly given its support to the Committee's efforts, both as a group and individually. "Thank you" seems an inadequate phrase to describe the debt owed to each of the Committee members, but as Chairman, I would like to express my deep appreciation.

David L. Stewart, M.D.
Chairman

Report of the Committee on Care for the Elderly

The Committee on Care for the Elderly was quite active this year. Three meetings were held, as well as an additional meeting by conference call.

The Committee was reconstituted this year and was given a new direction based on the changing care needs of our elderly population. The elderly patient group is an ever-increasing category of our population, who are proportionately "high" consumers of both medical care services and, resultingly, medical care funding. With this background, the Committee identified three basic areas of effort, which are: research of service availability, physician and elderly patient demographics, and specific elderly care needs; education of physicians on issues relating to care of the elderly; and liaison with professional and patient groups. Additionally, the Committee considered two referrals from the House of Delegates relating to patients in long-term care facilities. These issues were the availability of beds and the possible need of the establishment of uniform criteria for quality of care.

With regard to the availability of beds, the Committee sought basic information from the Kentucky Peer Review Organization, the Kentucky Medical Assistance Program, and the State Health Planning Council. It was determined by comparison of data received from these three sources that there is some question, not only of the number of long-term care beds needed, but of the actual number of beds available. The problem of availability of beds is confounded by the different levels of nursing home care recognized by the Medical Assistance Program. Medicare will only pay for care in a skilled nursing facility, while Medicaid will pay for skilled care, intermediate care, personal care, home

health care, and other categories of care. **The following paragraphs contained in brackets were referred to Reference Committee No. 5:**

[There is a general question of the validity of personal and intermediate care as true medical care. Personal and intermediate care do, however, relate to long-term care and, properly or improperly, are associated with medical care. This association is strengthened because reimbursement for this care is made by Medicaid.

Given this situation, there is no question that all current beds that can generically be described as "nursing home beds" are filled. There is no valid way to determine, though, how many of those beds are necessary for medical reasons and whether more or fewer are needed. A larger issue is the actual medical question or personal and intermediate care and if such levels of care should even be considered in the category of medical need. The State Health Planning Council has developed a rather complicated formula to determine bed need, but it appears that this formula is based on cost rather than on actual need for care.]

The bed availability question relates directly to quality-of-care criteria, both of which have a direct relationship to reimbursement. Quality-of-care criteria have been developed by the State licensing agency for long-term care facilities and are enforceable provisions of State law. The actual quality provided, however, directly relates to reimbursement, as a very practical matter. The quality-care issue and bed availability are affected by significant problems.

As an example, it has been suggested that the new prospective payment system for hospitals, payment on the basis of diagnosis related groups (DRGs), is resulting in patients generally being in poorer condition when released from the hospital. This places an increased burden on skilled care facilities, which must generally be prepared to treat these sicker patients with the same level of technology and personnel capabilities as in the past. This constitutes "care shifting," with a higher attendant cost to the nursing home, and without a simultaneous increase in reimbursement.

There continue to be significant nonpatient care costs with which nursing homes must contend, such as the cost of regulatory compliance, the payment for indirect services such as pharmaceutical inventory reviews, and licensure requirements. Nursing home operations are quite labor intensive, and nursing homes have substantial fixed costs. In this situation, nursing homes are being required to provide higher-intensity care, but at the same or lowered reimbursement, all of which has a significant impact on the quality of care provided.

While these observations do not directly answer the questions posed by the House, they do give rationale to what is a difficult, complex and, for the present time, insoluble issue, which is part of a larger problem. Realizing that the great majority of care of the elderly is provided outside medical facilities, together with a very high share of the medical dollar being spent on facility-based care, medical input obviously can have only minimal effect.

In the area of research, the Committee intends to continue developing and reviewing information on bed availability versus need and other issues which are of practical concern to physicians. Hopefully, this information can then be disseminated through projected continuing medical education efforts. One of the efforts considered was the development of informational articles on specific subjects to be submitted routinely to the KMA *Journal*. Such subjects might include patient medications, patient restraints, level of care determinations, dietary influence on overall health, and so forth. Long-range CME plans include conducting half-day or full-day seminars in different areas of the state or in a central location, joint efforts with the Kentucky Association of Health Care Facilities, and sponsorship of joint University of Kentucky and University of Louisville efforts on educational programs for patients concerning geriatric care.

The Committee sees an obligation to play a strong role in liaison activities, both within and outside the profession. To this end, contact has been made with different groups. Correspondence and conversation have taken place with representatives of the Kentucky Peer Review Organization about routine information gathering, as well as areas of joint effort. A meeting was held with a representative of Blue Cross and Blue Shield to consider levels of care determinations in nursing homes, which was quite illuminating. From the carrier standpoint, levels of care should be based solely on medical criteria, and these criteria have been delineated formally. However, the concern of governmental agencies is related more closely to reimbursement criteria, which makes determining levels of care a difficult and subjective effort. This constitutes, too, a significant social problem, and the Committee is in the process of developing a written address of this issue.

A meeting was also conducted with representatives of the Kentucky Association of Health Care Facilities,

and several areas of mutual agreement developed which will be the subject of future discussion. One of these issues is what is seen as a general overprescribing of drugs for nursing home patients, of which the physician may not be aware. To help resolve this problem, nursing homes are required by State law to conduct periodic pharmacy reviews, but the problem remains. In addition, under certain circumstances, nursing homes are required to receive laboratory tests on patients, even though they have no authority to prescribe them. The subject of long-term care health insurance was considered, as were alternatives to facility-based care, when appropriate. Regular communications will be maintained with the nursing home association, and further joint activities are predicted.

The Committee has also been in contact with the Kentucky Chapter of the American Association of Retired Persons, which has become a vocal and potent force on behalf of elderly citizens. Hopefully, an ongoing dialogue can be maintained with this group.

The Committee has had a seemingly brief, but very active year and looks forward to continued work in the areas discussed.

John C. Wright, II, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Special Report A on Professional Liability Insurance KMA Board of Trustees

In order to better appreciate the circumstances contributing to today's resurgent medical liability crisis in Kentucky, the Board recommends that Delegates reflect on the activities that occurred in this state during the mid-70s. The article contained in your Delegate packet styled "Medical Malpractice Legislation—the Kentucky Experience," will be useful in that regard.

After you have read the article, it is suggested you review the minutes of the meetings held by the Ad Hoc Committee on Professional Liability Insurance. Those minutes are also in your Delegate packet. You will find that the Committee spent many hours discussing proposals and recommendations before making its evaluations and determining its course of action.

After reviewing these documents, you should have a frame of reference for considering proposals intended to address medical liability in this state.

That was essentially the starting point for your Board of Trustees. Using that material and other background resources, we sought to learn about the mix of factors involved in medical liability. We soon realized that there are some limitations on what we can accomplish. Nevertheless, we thought that by proceeding in this fashion, we could assure that the choices we make are informed ones.

We found that the causes of the crisis are manifold. In large measure, the structure of the health care delivery system contributes to the problem. Quantum leaps in medical technology may enhance our capabilities, but such advances also prompt unrealistic expectations and the anticipation of a perfect result. While specialization may focus our expertise, it also may make our relationship with patients less personal than we or our patients would like. Long waits in physician offices, hospitals, and outpatient clinics do little to produce an amicable working relationship. These are some of the friction-provoking circumstances which accompany the rendition of health care in today's society, and they serve to exacerbate the medical liability crisis.

In addition, the Committee recognized that less than optimal medical practice aggravates the crisis substantially. There is no question that there is physician negligence, and tougher discipline and continuing education are essential. As physicians, we do realize that the problem is not altogether the result of action by outside forces.

Oftentimes an untoward result, coupled with some triggering incident, brings about liability problems when negligence is not involved. The catalyst is often a bad physician-patient relationship, but it can also be an unexpected or unexplained bill, personal rudeness, the anger and frustration of a close relative, the unthinking observation of another physician or one of a myriad of other possibilities.

We must be particularly wary in a litigious society such as ours, where the judiciary is called upon to provide recompense for nearly every concern, and a greater number of capable lawyers make themselves available for that purpose.

Perhaps the most significant factor in all this is our civil justice system. In brief, a good argument can be made that a majority of the dollars paid out in tort actions today go toward maintenance of the system rather than compensation for loss suffered by the claimant. Recent studies corroborate this and demonstrate how the system tends to nurture itself at the expense of those for whose benefit it was established.

Changes in the insurance industry also fuel the crisis. Premium increases have been substantial, and this

trend is expected to continue. This phenomenon is occurring, not only in medicine, but in such other diverse areas as day care, municipal government, product manufacture and the airline industry. Professional liability insurance costs for attorneys have also markedly increased. The cost of reinsurance, when it can be purchased, has gone up dramatically.

We have outlined only a few of the many factors responsible for the medical liability crisis. The suggestions for addressing the problem are equally legion.

There have been calls for public relations campaigns to create public awareness of the crisis. A similar sort of endeavor was considered during the 1984 Annual Meeting. In turn, your Board of Trustees investigated and determined that the cost of such activity far outweighed the benefit derived from it. An opinion shift of one, to one and one-half percent, was the norm, and this was apparently only a fleeting change which quickly diminished. However, the AMA is undertaking such a campaign, and Kentucky is a national test site to determine the efficacy of such a project.

Numerous tort reform measures were enacted during the mid-70s. A schematic contained in your Delegate packet details 20 such proposals, pointing out their efficacy and potential problems incident to their enactment. In Kentucky, a number of proposals for which KMA worked during 1976 remain in effect. They include confidentiality of peer review, elimination of the ad damnum clause, provisions related to informed consent, apportionment of damages, and the advance payment of insurance proceeds. Other statutes require the reporting of malpractice settlements and judgements to the Commissioner of Insurance and prohibit liability based upon a guarantee or assurance of results unless such warranties are given to the patient in writing and signed by the physician.

Legislation establishing a Patients' Compensation Fund was also enacted in 1976, but deemed unconstitutional in the case of *McGuffey v. Hall.* Because of the way Kentucky's Constitution is written and in light of strong language in the *McGuffey* case addressing the issue, any cap or limitation on judgements in malpractice cases would also appear to be constitutionally infirm.

Additional proposals which may not withstand constitutional scrutiny include those which mandate arbitration or pre-trial screening panels or modify the statute of limitations regarding minors.

As a result of other Kentucky Supreme Court decisions, it also appears that legislative enactment of some reform measures would violate constitutional provisions establishing the Supreme Court's rulemaking authority and, therefore, be beyond the power of the General Assembly. Included in this category are proposals to alter or amend the collateral source rule, limit attorneys' contingent fees or require periodic payment of damage awards.

All this withstanding, making recommendations on tort reform becomes a difficult task. We cannot ignore the constitutional, legal and political constraints under which medicine must labor. Those limitations narrow the field of effective reform measures dramatically, so much so that the Ad Hoc Committee did not feel the reform options available to use would bring substantial relief to the professional liability insurance market in Kentucky. The Board is not prepared to argue against such reservations. Nevertheless, we feel a duty to the membership of this Association to ensure that the medical liability issue receives a fair hearing before the people of the Commonwealth of Kentucky.

It may be that changes in our Constitution are most desirable, but there is no reason to believe the crisis in our state has reached the point where legislators and the general public have the concern necessary to support such a lengthy campaign. The efforts of the Governor's Task Force on Professional Liability focused attention on liability issues in 1975-76, and there seems to be merit in advocating that a similar group be impaneled to analyze Kentucky's resurgent crisis. This would be one step in assuring the much-needed hearing to which we referred.

While legislative action in some areas may violate the Judiciary's rulemaking authority, there is no prohibition against the Supreme Court itself enacting rules which would affect the liability insurance problem. There is a procedural mechanism for suggesting new or modified rules, and a public hearing is normally held when the Court formally considers these suggestions. This would be another step in our effort to assure that those in a position to affect change are aware of the liability problem.

The Ad Hoc Committee felt the profession needs to do all it can within its ranks to eliminate problems that result in higher premiums. One of their unanimous opinions was that mandatory CME should be established and maintained as a condition of relicensure. They also felt public relations and the education of the public was indicated, that Committees on Risk Management and Cost Control should be developed in Kentucky hospitals, and that KMA should endorse the KMIC programs on claims awareness and prevention.

The Board of Trustees feels that the most appropriate response to the current liability situation in Kentucky is to implement the following recommendations while continuing a dedicated study in the months ahead for proposals which may have a stronger and more lasting impact.

Recommendations:

1. Tort Reform—that KMA petition the Supreme Court regarding the enactment of rules addressing:
   a. Modification or elimination of the Collateral Source Rule.
   b. Establishment of a mechanism for the periodic payment of judgements awarded in medical liability cases.

   The precise language and form of these two proposals will be established upon advice of legal counsel in consultation with members of the KMA Board of Trustees, Executive or Quick Action Committees, and staff, as appropriateness may dictate.
2. Task Force—that the KMA Board of Trustees, at the appropriate time, request that the Governor appoint a special task force to analyze the medical liability situation in Kentucky for the purpose of proposing solutions to the problems.
3. Internal Activities
   a. That the issue of mandatory CME as a condition of relicensure be referred back to the KMA Committee on Continuing Medical Education for its recommendations, to be presented to the 1986 House of Delegates, with details of the operation and structure of a tentative CME program for the physicians of Kentucky.
   b. That KMA encourage Kentucky hospitals to develop Committees on Risk Management and Cost Control which are made up of members of the hospital medical staff.
   c. That KMA endorse and encourage participation in the Kentucky Medical Insurance Company's programs on claims awareness and prevention.
   d. That KMA study the issue of arbitration of medical liability cases.
4. External Activities
   a. That KMA leadership strengthen its communication with allied groups, representatives of local, municipal, and state governments, the business community, and others in order to foster a better understanding of the liability problem and a means toward its solution.
   b. That KMA participate in public forums, such as civic clubs and chambers of commerce, and use the media to better educate the public about liability problems and the effects they have on the availability and cost of health care.
   c. That the KMA membership capitalize on opportunities and use available resources, such as posters and pamphlets, to educate patients about the effects of liability insurance costs.
   d. That KMA study and where desirable support AMA efforts to achieve national legislation affecting liability issues.

Resolution A
Harlan County Medical Society
Collateral Compensation

WHEREAS, the increasing amount of awards in medical misadventures has resulted in a spectacular rise in cost of medical liability insurance, and

WHEREAS, the high cost of medical liability insurance increases the cost of medical care to the citizens of Kentucky, and

WHEREAS, collateral compensation or benefits already paid or awarded to the plaintiff such as hospital insurance, unemployment insurance, sick-pay benefits, workman's compensation, etc., is not given consideration in medical misadventure awards by the juries and courts, and

WHEREAS, such collateral compensation is prohibited as admissable evidence in a liability or medical misadventure case, thus allowing awards where the plaintiff had not expense, and

WHEREAS, the consideration of collateral compensation in such cases would decrease the amount of awards, which should decrease the cost of insurance, thereby lowering the cost of medical care, now therefore be it

RESOLVED, that the Kentucky Medical Association do all in its power to have enacted legislation which requires judges to reduce awards after trials by the amount of collateral compensation the victim received, with life insurance excluded from the compensation that must be considered.

Resolution B
Harlan County Medical Society
Tort Reform

WHEREAS, the increasing frequency of "malpractice" suits and the size and frequency of jury awards in medical liability suits has been the cause of extremely high insurance premiums, and

WHEREAS, the American Medical Association recommends addressing the "malpractice" problem by recommending tort reform—the revision of laws and procedures governing negligence litigation—that would make the resolution of these cases faster, less burdensome, and fairer to all the litigants, and

WHEREAS, many of the recommended tort reforms are found to be constitutional in many states, and

WHEREAS, Kentucky lags behind many states in the area of tort reform, now therefore be it

RESOLVED, that the Kentucky Medical Association, county medical societies and individual physicians use their organizational influences to promote State tort reform in the following areas: pretrial screening panels, arbitration, liability limits, statute of limitations, collateral source rules, and controls on attorney fees.

Resolution C
Harlan County Medical Society
System of Recompense for Medical Misadventures

WHEREAS, the rapidly escalating cost of medical liability insurance is the result of the high cost of litigation in successful and unsuccessful cases, as well as the generous awards of successful cases, and

WHEREAS, the outcome of a medical or a surgical problem is not always a desirable one, and may be the result of a misadventure which can occur despite the competence and qualifications of the attending physician or surgeon, and

WHEREAS, the present adversarial system has created an atmosphere of fear and distrust between patient and physician, which further increased the cost of medical care by engendering a practice of "defensive medicine," and

WHEREAS, the Department of Labor has a well-established system of compensation for loss incurred as a result of misadventure in the work place, which is of benefit to employee and employer alike in several ways:

1. Reduction of the time in which a case can be resolved;
2. Reduction of mental and emotional strain of litigation;
3. Reduction of litigation costs; and

WHEREAS, a similar system of medical misadventure compensation would provide the same benefits, as well as:

1. Reducing the cost of medical care by reducing the anticipatory defensive maneuvers on the part of physicians;
2. Improving the patient-physician relationship (the effectiveness of medical care) by reducing the atmosphere of fear and mistrust;
3. Reducing the work time loss induced by the adversarial system; now therefore be it

RESOLVED, that the Kentucky Medical Association promote and work to establish a system of recompense for medical misadventures, similar to the workman's compensation system, providing a specific amount for a specific loss, and a board which would hear and make payment on cases of unusual circumstance or complicated results, which board could also serve in an appellate capacity.

Resolution Q
Pennyrile Medical Society
Limiting Liability Awards

WHEREAS, enormous awards for medical liability have created an intolerable situation, significantly increasing the cost and adversely affecting the efficacy of medical care for all citizens of the Commonwealth, and

WHEREAS, a constitutional amendment is required to address this critical problem, now therefore be it

RESOLVED, that the Kentucky Medical Association actively support a State constitutional amendment limiting awards for medical liability to less than $500,000.

Resolution U
Harlan County Medical Society
Professional Liability

WHEREAS, the incidence of claims of medical malpractice is rising in Kentucky, resulting in considerable outlay of time, money, and emotion of plaintiffs and dependents alike, and

WHEREAS, the spector, as well as the experience, of such litigation, especially in some specialties, is causing physicians to utilize tests which may be superfluous, costly, and even risky, or to consider curtailment of some services (such as obstetrics), and

WHEREAS, said spector or experience tends to engender a breach in the relationship of trust and caring between patient and physician, and

WHEREAS, the costs of litigation (including the protective insurance) must eventually accrue to the users of the services and therefore, become a matter of public interest, and

WHEREAS, a diverse, informed group could serve the public by providing information and suggesting solutions,

NOW THEREFORE BE IT RESOLVED, that the Kentucky Medical Association favor and propose to the Governor of the Commonwealth of Kentucky, the establishment of a Task Force, composed of knowledgeable citizens, attorneys, and physicians, with representatives of the Kentucky General Assembly, who would be directed to study at length the "malpractice" problem, and to make recommendations in the interest of the public, and

BE IT FURTHER RESOLVED, that the Kentucky Medical Association initiate a public relations program so that the public is better informed on the problem and its impact, both present and potential, on medical care.

Recommendations, Reference Committee No. 3:

SPECIAL REPORT A on Professional Liability Insurance (KMA Board of Trustees)

20. Report of the Committee on Continuing Medical Education, section on mandatory CME participation, page 20.2, paragraph one, and Recommendation No. 1 only

Resolution A—Collateral Compensation (Harlan County Medical Society)

Resolution B—Tort Reform (Harlan County Medical Society)

Resolution C—System of Recompense for Medical Misadventures (Harlan County Medical Society)

Resolution G—Professional Liability Tort Reform (Resident Physician's Section)

Resolution P—Equitable Liability Insurance Coverage (Pennyrile Medical Society)

Resolution Q—Limiting Liability Awards (Pennyrile Medical Society)

Resolution U—Professional Liability (Harlan County Medical Society)

Reference Committee No. 3 considered all of the above-listed items pertaining to Professional Liability Issues and will address them as individual categories.

Reference Committee No. 3 considered Resolution U and divided the Resolution into two parts. Part one (the first "Resolved") will be considered along with Special Report A, Recommendation 2; part two (the second "Resolved") will be considered with Special Report A, Recommendation 4.

Tort Reform

First, Reference Committee No. 3 considered Special Report A and specifically Recommendation 1 and Resolutions A, B, C, and Q.

In considering Recommendation 1 on Tort Reform of Special Report A, the Reference Committee, after considerable discussion, recommends the following Substitute Recommendation 1:

1. Tort Reform

a. That KMA petition the Kentucky Supreme Court regarding the enactment of rules addressing modification or elimination of the Collateral Source Rule.

b. That KMA petition the Kentucky Supreme Court regarding the enactment of rules addressing establishment of a mechanism for the periodic payment of judgements awarded in medical liability cases.

The precise language and form of these two proposals will be established upon advice of legal counsel in consultation with members of the KMA Board of Trustees, Executive or Quick Action Committee, and staff, as appropriateness may dictate.

c. That the KMA push for legislative and constitutional changes concerning limitation of awards and adjustment of the statute of limitations as it pertains to minors.

The Reference Committee recommends adoption of Substitute Recommendation 1 in lieu of Recommendation 1 of Special Report A and Resolutions A, B, C and Q.

Task Force

The Reference Committee next reviewed Recommendation 2 of Special Report A concerning the formation of a Task Force by the Governor, and the first "Resolved" of Resolution U.

Reference Committee No. 3 recommends adoption of Recommendation 2 of Special Report A in lieu of the first "Resolved" of Resolution U.

Internal Activities

The Reference Committee then considered Recommendation 3 (b), (c), and (d) of Special Report A.

Reference Committee No. 3 recommends adoption of Recommendation 3 (b), (c), and (d) of Special Report A.

External Activities

Reference Committee No. 3 next reviewed Recommendation 4, External Activities, of Special Report A, and the second "Resolved" of Resolution U.

The Reference Committee recommends the adoption of Recommendation 4, External Activities, Special Report A, in lieu of part two of Resolution U.

Reference Committee No. 3 recommends the balance of Special Report A on Professional Liability Insurance be filed.

Report of the Committee on Continuing Medical Education Section on Mandatory CME Participation, and Recommendation No. 1, only

In another matter, the Committee reviewed a proposal made by the Ad Hoc Committee on Professional Liability Insurance recommending that KMA advocate that the Board of Medical Licensure require participation in continuing medical education programs as a condition of relicensure. After giving serious consideration to the advantages and disadvantages of mandatory CME participation, the Committee would also like to recommend that KMA advocate such a requirement with certain conditions to safeguard the integrity of such an endeavor, as specified in the recommendation at the end of this Report.

RECOMMENDATION:

1. The CME Committee recommends that KMA advocate mandatory participation in continuing medical education programs by physicians as a requirement of the Board of Medical Licensure for relicensure, with consideration being given to the following: that the hours be restricted to AMA Category 1 credit hours; that the initial requirement be for a minimal number of hours; that efforts be made to minimize profit; that a uniform reporting procedure be utilized; that procedures be established for exceptional cases; and that the Board of Trustees finalize these recommendations before approaching the Board of Medical Licensure regarding a CME requirement.

Recommendations, Reference Committee No. 3:

Mandatory CME

Reference Committee No. 3 next discussed Recommendation 3 (a) of Special Report A concerning mandatory CME and also the sections dealing with mandatory CME from Report 20, the Continuing Medical Education Committee. It was the consensus of the Reference Committee, and those who spoke before the Committee, that no evidence was presented demonstrating that mandatory CME affects the malpractice problem. Considering this, the Committee agrees that mandatory CME should be considered further.

Reference Committee No. 3 recommends the adoption of Recommendation 3 (a) of Special Report A in lieu of Recommendation 1 of Report No. 20.

Reference Committee No. 3 recommends that the remainder of Report 20 dealing with mandatory CME be filed.

Resolution G
KMA Resident Physician's Section
Professional Liability Tort Reform

WHEREAS, several states have recently suffered crisis situations regarding professional liability and have taken action in the form of tort reform, and

WHEREAS, professional liability is a growing problem in the state of Kentucky, now therefore be it

RESOLVED, that the KMA Resident Physicians Section support the joint KMA-KMIC Ad Hoc Committee on Professional Liability in its effort to effect tort reform that would address all aspects of professional liability insurance, to include that covering in-training physicians.

Recommendations, Reference Committee No. 3

Reference Committee No. 3 considered Resolution G and proposed the following Substitute Resolution G:

"RESOLVED, that all KMA activities concerning professional liability should apply equally to all physicians, including in-training physicians."

Reference Committee No. 3, therefore, recommends adoption of Substitute Resolution G.

Resolution P
Pennyrile Medical Society
Equitable Liability Insurance Coverage

WHEREAS, hospital liability insurance carriers are requiring individual physicians to carry the same amount of liability coverage as does the hospital, and

WHEREAS, individual physicians should not, and do not have the same liability risk as does a hospital, and

WHEREAS, an individual physician's risk varies with his specialty, and

WHEREAS, the hospital's risk varies with the number of employees, types of procedures, and other factors, now therefore be it

RESOLVED, that the KMA Delegates hereby instruct the Board of Trustees of the Kentucky Medical Association to take whatever steps necessary to create a fair and equitable arrangement for liability coverage between physicians and hospitals. In hospitals with more than 10 physicians, the physician's liability coverage should be no more than 10% of the hospital's coverage.

Recommendations, Reference Committee No. 3:

Resolution P was reviewed by Reference Committee No. 3, and it was felt that since there was no obvious need for a recommendation for a specific figure for hospital coverage, it was recommended that the last sentence, beginning with the word, "in," and ending with the word, "coverage," be deleted.

Reference Committee No. 3 recommends that Resolution P be adopted as amended by the deletion of the last sentence of the "Resolved."

Mr. Speaker, I move the adoption of the Report of Reference Committee No. 3 as a whole.

Mr. Speaker, I want to personally thank the members of the Reference Committee who worked long and hard to assist in the formulation of significant recommendations concerning very controversial issues. Members of the Committee were Gordon W. Air, M.D., Crestview Hills; Nick G. Dedman, M.D., Harrodsburg; Larry P. Griffin, M.D., Louisville; and David C. Liebschutz, M.D., Danville. I would also like to thank Doris Crume for her assistance in the preparation of this Report.

REFERENCE COMMITTEE NO. 3

Sally Mattingly, M.D., Lexington, Chairman
Gordon W. Air, M.D., Crestview Hills
Nick G. Dedman, M.D., Harrodsburg
Larry P. Griffin, M.D., Louisville
David C. Liebschutz, M.D., Danville

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

Report of the KEMPAC Board Chairman

Mr. Speaker, Fellow Delegates and Guests—

As Chairman of the KEMPAC Board of Directors, I am most pleased to have the opportunity to give this report on KEMPAC activities.

At this time, the KEMPAC membership is 1,040, including 170 Sustaining members. This is about a 10% increase over last year's total. Pike County has 100% KMA membership in KEMPAC/AMPAC again this year and I want to commend them for this achievement.

In 1986 Kentucky will elect a U. S. Senator, 100 House members and 19 Senators for the Kentucky General Assembly.

Our success rate for the Kentucky General Assembly has been about 90% the past few years. This has been accomplished through the recommendations from the grass roots level, the Legislative Committee and the KMA lobbyists.

As leaders of the Kentucky Medical Association we urge you to get to know your state and U. S. Congressmen. Keep in touch with them and express your views on issues. Your KEMPAC Director is your contact with KEMPAC Board.

It must be pointed out that actions taken by the KEMPAC Board of Directors are believed to be in medicine's best interest. If, at times, you are in disagreement, we urge you to work for the candidate of your choice on an individual basis.

The KEMPAC dues structure for 1986 has been changed. The dues will be $100 for KEMPAC and AMPAC for each member. We hope you will include your spouse's dues when sending in your dues. Student and Resident dues remain at $10 for KEMPAC/AMPAC.

I would again like to remind you that 100% of your dues goes for candidate support.

In 1984 as in past years, the KMA House of Delegates reaffirmed its belief in the objectives of KEMPAC and AMPAC and recommended 100% participation by doctors in Kentucky. It further recommended a vote of endorsement and encouragement of the KEMPAC organization to continue its worthwhile political efforts on the behalf of our free enterprise system and the freedom of the art and science of medicine.

I recommend that you reaffirm and include billing of KEMPAC/AMPAC dues in the statewide billing of 1986 KMA dues.

(A motion was made, seconded, and carried to adopt this recommendation.)

On behalf of the KEMPAC Board, I want to thank the Delegates, the KMA Board of Trustees, the Auxiliary to KMA, and staff for your help and support.

James S. Brashear, M.D.
Winchester

REPORT OF REFERENCE COMMITTEE NO. 4

William R. Handley, M.D., Elizabethtown
Chairman

Reference Committee No. 4 considered the following Reports and Resolutions:

31. Report of the President, Blue Cross and Blue Shield of Kentucky
32. Report of the Committee on Medical Insurance and Prepayment Plans
33. Report of the Committee on Claims and Utilization Review
34. Report of the Coordinating Commission on Peer Review Activities
35. Report of the Committee on Health Care Costs
36. Report of the Committee to Investigate Changing Trends in Medicine

Resolution L—Health Insurance Hotline (Jefferson County Medical Society)

Resolution N—Automatic Direct Payment of Major Medical Benefits (Jefferson County Medical Society)

Resolution T—Patient Involvement in Insurance Procedures (Board of Trustees)

ITEMS FOR CONSENT

Reference Committee No. 4 reviewed the following items and recommends they be filed, by the consent of the House, without discussion:

31. Report of the President, Blue Cross and Blue Shield of Kentucky—filed
33. Report of the Committee on Claims and Utilization Review—filed
34. Report of the Coordinating Commission on Peer Review Activities—filed
35. Report of the Committee on Health Care Costs—filed

Mr. Speaker, the Committee would like to express its appreciation to the authors of the reports which have been filed for their time and effort spent in gathering this information for the House of Delegates.

Report of Blue Cross and Blue Shield of Kentucky

This report provides the Kentucky Medical Association House of Delegates with a status of Blue Cross and Blue Shield of Kentucky activities.

The marketplace for health care financing services remains highly volatile. Competition, coupled with an increasingly cost-conscious public, has resulted in a challenging and changing business environment. Kentuckians are demonstrating greater acceptance of alternative delivery systems such as Health Maintenance Organizations and Preferred Provider Organizations. Changes in the Medicare program have also contributed to an increased emphasis on cost containment. The Plan has taken aggressive steps to identify marketplace trends and respond with competitive products.

The Plan remains strong, both financially and in the marketplace. The corporation's contingency reserves as of June 1985 represent 3.11 months of average benefit and operating costs. Currently, 1,202,461 members are enrolled, representing 32.8% of Kentucky's population.

In 1984, claims payments for both private and government business increased to $1.5 billion. The Plan's private business reimbursed providers of health care more than $567 million, including $213 million for professional services. As Fiscal Intermediary for Part A of Medicare, the Plan reimbursed providers $533 million for services rendered to Medicare beneficiaries; and for Part B of Medicare, the Plan reimbursed providers $164 million for professional services.

Member claims volume continues to rise, with nearly 3.7 million claims processed for regular underwritten business in 1984. This volume is an increase of 12% over 1983 and represents the processing of more than 14,600 claims, totaling $2.1 million of underwritten benefits for each business day. Consistently a top-performing administrator of Medicare Parts A and B, the corporation processed an additional 3.5 million Medicare claims in 1984, for an increase of 15% over 1983.

The Usual, Customary, and Reasonable (UCR) benefit program continues to be the dominant health benefit package in the marketplace, and more than 78% of Kentucky's practicing physicians participate in the program. More than 586,000 members are covered by the UCR benefits programs, and payments for UCR services exceeded $79 million in 1984. The current trend in benefit design is away from 100% UCR programs and toward percentage UCR programs, with 80% Plan payment typical.

A new claims processing system was implemented on January 1, 1985. The new system integrates the processing of claims and administrative services into a single coordinated system. New computer hardware has been installed which significantly expands our capability to provide better service and claims handling.

There are 66 hospitals and 95 physician offices sub-

mitting claims to Blue Cross and Blue Shield of Kentucky through the Provider Communications Network (PCN). The network provides immediate access to benefit eligibility and accepts claims for both Medicare and private business. The Provider Communications Network expanded with the addition of both tape-to-tape and computer-to-computer capabilities.

There is considerable activity underway which will impact on the financing and delivery of health care in Kentucky. The following summarizes activities which the Plan considers of major importance:

- On July 20, 1985, following Certificate of Need and Licensure Board approval, the Plan announced the incorporation and development of a health maintenance organization (HMO). That organization, HMO Kentucky, Inc., is a statewide primary care physician network HMO that will be initially marketed in a number of major population areas throughout the Commonwealth beginning this fall. Alternative delivery systems will become an integral part of future Plan activities.
- After much review by Plan management, the Blue Cross and Blue Shield Board of Directors and its Medical Advisory Committee made a decision to provide coverage for heart, heart/lung, liver and pancreas transplants. This coverage is being provided to our accounts by spreading the risk with our large membership base and providing for a reinsurance mechanism. This benefit provides comprehensive protection against the very high cost associated with covered transplant procedures.
- The Plan, in coordination with Blue Cross and Blue Shield Association, opposes Federal initiatives to tax employee benefits. The Plan believes that any attempt to reverse a 30-year Federal tax policy that encourages employer-paid group health benefits would result in a reduction of health benefits and would disproportionately affect lower income workers by taking a greater share of their income.
- The Commonwealth of Kentucky and Boards of Education group, which has more than 90,000 employees, selected Blue Cross and Blue Shield of Kentucky as its carrier effective January 1, 1985. The benefits for this program were expanded and a dedicated unit was created to process claims and handle inquiries. The cost containment provisions of this group are functioning effectively and have been well received by the members and the profession.
- The Assurance Plus program, triggered by a preadmission certification feature, is now an integral part of the benefit plan of more than 319,000 Blue Cross and Blue Shield of Kentucky members. Assurance Plus has become a model program and was recently added, on a pilot basis, to the Federal Employees Health Benefit Program. In addition to the preadmission certification feature, Assurance Plus helps to manage the subscriber's health care by providing incentives for ambulatory surgery, second opinions prior to surgery, and preadmission testing. The program resulted in a savings of more than $6 million for Blue Cross and Blue Shield members in 1984.

The Corporate mission of Blue Cross and Blue Shield of Kentucky is to provide excellent service to the groups and individuals who entrust us with their health care dollars. As the state's largest provider of health care coverage, the following goals have been established:

- to seek new ways to maintain quality health care while containing costs;
- to take advantage of growing technological ability to further streamline and improve claims processing;
- to offer customers greater alternatives in their choice of health care protection; and
- to broaden the corporation's ability to meet the benefit needs of our members.

Our achievement of the above goals is based on an effective working relationship with our accounts, our members and the providers of health care.

G. Douglas Sutherland
President

Report of the Claims and Utilization Review Committee

The Claims and Utilization Review Committee met quarterly this year. The total caseload has diminished from previous years, but the cases encountered required more in-depth review. Fee review was reinstituted this year, on a limited basis, because of recent rulings by the Federal Trade Commission. The Committee has developed a process whereby a fee is determined to be reasonable or unreasonable, but fee ranges are not cited.

The trend of claims considered this year was toward utilization of services. An emphasis throughout the medical care community on outpatient services to avoid more costly hospitalization has had a definite influence on the practice of medicine and, to an extent, has caused confusion for the physician, who must now be aware of

administrative patient care processes as much as the medical care process.

There is a similar trend toward cost review rather than more traditional quality review, which is no longer prominent. However, final quality review must be done by practicing physician peers. In this context, this trend has resulted in the volume of case review emphasizing not just individual incidents, but practice patterns. The Committee members see this as the proper role of the medical association, but this is often difficult to accomplish on the basis of insurance claims records alone. It is vital that physicians whose cases are being reviewed cooperate and provide input. The Committee would like to stress that it is not a punitive body, but does feel an obligation to educate the physician or resolve medical practice situations when education would not be appropriate.

This has been especially true this year, as a large number of claims were reviewed relating to what can only be termed as prescription drug abuse or overutilization of scheduled drugs. The Committee members were alarmed to learn of the number of physicians who have patients who routinely receive large doses of medications. It is realized that most physicians have "problem" patients, and maximum-use drug regimens do have medical validity; however, a significant number of claims were seen where obvious excessive prescribing was taking place. In some instances, the situation was mitigated by the fact that several physicians may have been prescribing to the same patient, as well as the doctors very simply being duped by their patients. However, in other cases, there was no justifiable medical or social reason for the degree of excessive prescribing.

In these cases, the Committee first tried to ascertain the nature of the situation. If no mitigating circumstances were determined, the Committee made every attempt to make sure the attending physician was aware of the problem. The Committee then sought an explanation of the problem and requested its resolution. In some instances, however, the Committee felt obliged to refer the situation to the Board of Licensure because, in terms of medical practice, the case was medically not justifiable.

As this Report is made annually to the House of Delegates probably insufficient attention is given to the 15 Trustee District committees, where all review originates. Operating with little or no administrative support and with members often residing in varying locations, the District committees nevertheless consistently work diligently and provide the basis for the peer review mechanism. I would like to thank all District committee members, as well as the members of the Claims and Utilization Review Committee, for all their work, and would seek the ongoing help and support of the membership.

K. Thomas Reichard, M.D.
Chairman

Report of the Coordinating Commission on Peer Review Activities

The Coordinating Commission on Peer Review Activities was established by the House of Delegates and consists of the Speaker of the House, a member of the Board of Trustees, and the Chairmen of the Judicial Council, Claims and Utilization Review Committee, and the Committee on Impaired Physicians. The Commission was created to oversee all peer review activities, to coordinate issues that cross lines of jurisdiction of the various components of KMA's peer review system, and to conduct specific studies as needed.

The Commission was not required to meet this year, as no significant matters arose that could not be dealt with by the overall system. Routine coordination is accomplished at the administrative or staff level, for the most part, with routine direction from the Chairmen of the three committees affected and general oversight provided by the Board of Trustees.

J. Campbell Cantrill, M.D.
Chairman

Report of the Committee on Health Care Costs

Although the Health Care Cost Committee did not meet formally this year, we continue to monitor developments in the area of health care costs.

Today alternate payment and delivery systems are proliferating in Kentucky. Whether or not these systems have had or will have any direct effect on health costs is not clear at the moment. It is clear, however, that some combination of new payment mechanisms, a greater supply of physicians, and a greater awareness of the benefits of healthful lifestyles is, in fact, having some impact on health cost inflation.

The overall inflation rate for 1984, measured as the increase in the all items index of the Consumer Price Index was 4.0%. The Consumer Price Index is made up of several components, the three largest being housing at 38%; transportation at 22%; and food and bev-

erage at 20% of the overall index. The food and beverage index increased at a rate of 3.7% in 1984; the housing index saw a 4.2% increase; while transportation rose 3.1%. The medical care component has a weight factor of about 6% of the all items index, and it increased at an annual rate of 6.1% in 1984.

Other goods and services components contain tobacco products, personal care goods and services, and personal and educational expenses. The personal and educational expenses subcomponent increased about 10% in 1984.

Although the overall inflation rate, as measured by the all items price index, increased slightly from 1983 to 1984, price increases for medical care overall experienced a decrease. In fact, the 1984 price increase for medical care was 6.1%, the lowest in the past decade. Prescription drugs logged the largest price increase for 1984, nearly 10%. Hospital room costs have moderated considerably in the last five years. From 1981 to 1984, increases in the hospital room index of the CPI fell from 17% to 7.4%.

Last year the Committee reported its concern that corporations are beginning to control the practice of medicine and that business organizations may ultimately assume control of determining how much care their employees will receive and at what price.

Recently, the Ohio State Medical Association conducted a telephone survey of a representative sample of Ohio residents to measure the public's level of knowledge concerning changes in health care. Eighty-five percent of the respondents indicated that they had a personal physician and had not switched doctors in the last two years. Thirty-three percent of those polled had changed health plans in the last two years, and of those, approximately one-half changed plans because they changed jobs or because their company changed its coverage. Of those who changed health plans, fewer than 5% were required to switch physicians as a result of the change. However, nearly 40% of those people who did change health plans in the last two years didn't know whether or not the new plan required them to change physicians. Most respondents indicated that they were knowledgeable about health coverage available to them. However, when asked what types of health plans were available to them when they changed plans, nearly half were unable to respond. Most people polled didn't discuss having to make a change with anyone. A few who did discuss the change talked with their family, their friends, their employer or their insurance company. Fewer than 2% discussed it with their physician. Thus, it appears that most of these survey respondents, despite claims to the contrary, know very little about how health care is changing and are making very important decisions about their health based on little or no information.

Last year the Committee also reported on the activities of the Kentucky Health Cost Coalition which was established to address the rising costs of health benefit plans. To our knowledge, the Coalition has not been active this past year.

The issue of health costs in the mind of the public remains significant. KMA has developed a professionally produced slide presentation which gives medicine's side of the health cost issue. The program was designed for presentation before "opinion-maker" audiences. The Committee recommends that members of the House use this program to make your community aware of the profession's point of view on this complicated topic, especially as we approach the next meeting of the Kentucky General Assembly in January.

Walter R. Brewer, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the Committee on Medical Insurance and Prepayment Plans

The Committee on Medical Insurance and Prepayment Plans met December 12, 1984; March 13, 1985; and May 22, 1985, and will meet again on July 10 after this report is written.

Blue Cross and Blue Shield KMA Endorsed Plan

For a number of years, KMA has endorsed a program developed by Kentucky Blue Cross and Blue Shield for KMA members. That plan has two options. The high option coverage is a Major Medical Comprehensive Plan with the first $2,000 being paid in full. After a $100 deductible, 80% of the next $6,000 is covered, followed by a full payment from that point on up to $1,000,000.

The low option has a $100 per person deductible with a $300 maximum, 80/20 co-payment with a $5,000 stop loss.

In 1984, our plan experience was such that the low option premium increased 30% and the high option increased 19.5%. The Board asked our Committee to do an indepth study of the plan's utilization to determine what steps might be taken to stabilize or reduce

these very high rate increases. As a result, a majority of the Committee's efforts this past year has been devoted to a detailed study of our utilization. We have clearly identified some areas of high utilization, but are continuing our study in an effort to determine what steps might be taken to better control that utilization without unduly limiting benefits.

The Committee found that utilization of out-of-state hospitals for members of KMA's group is approximately three to four times the normal rate of out-of-state hospitalization based on statewide averages. In addition, the cost per case of an out-of-state hospitalization for our members averages two to five times that of in-state hospitals.

Another area the Committee is carefully studying is utilization of psychiatric service. Our group utilizes psychiatric service admissions at a rate of three times that of the statewide average. Last year one claim for a mental disorder accounted for $93,000. The Committee found studies which suggest that physicians tend to use psychiatric services more than the general public, while other studies tend to dispute that theory. The Committee asked that a psychiatrist be added to the Committee on a permanent basis, and that has been accomplished. We met with representatives of the Kentucky Psychiatric Association and are working with them to establish a joint committee to review the utilization of psychiatric services under our program.

The third area of concern was the number of otolaryngology procedures performed on an inpatient basis under our plan. The Committee urges that these types of procedures be done on an outpatient basis as much as possible.

The Committee wishes to emphasize that we do not feel it appropriate for us to limit any type of service that is useful to our members simply because of its expense. In addition, we do not anticipate that we will find any improper utilization of covered services. We believe that our rate increases are simply because of utilization, and, in the vast majority of cases, that utilization is entirely appropriate. However, we feel a responsibility to undertake whatever activities are necessary to assure the membership that its programs are being utilized appropriately and to make those recommendations we feel are necessary to get the highest quality program available at the lowest possible cost.

As the House of Delegates is aware, a number of coverage plans are now being marketed which include so-called cost containment measures. The Committee is also well aware of the House's position regarding preadmission certification, second opinions and other cost containment measures whose effectiveness have yet to be proven. However, we have discussed the feasibility of adding such cost containment measures to at least one of the options currently being offered to the KMA membership. The Committee would welcome some guidance from the House in this matter. One idea presented was to offer identical coverages with one option being the addition of cost containment measures which, according to Blue Cross and Blue Shield, would lower rates by approximately 5%. This might allow first-hand experience with these cost containment procedures and get some idea as to their acceptability by the general membership.

The Committee is also interviewing other carriers in an effort to determine if, in fact, the Blue Cross and Blue Shield coverages now offered are the best possible benefits that can be found. At this point, we have been unable to locate many carriers who are interested in working on a statewide basis. However, we continue to have discussions in this regard and will report our findings to the Board of Trustees.

State Employee Group

Blue Cross and Blue Shield representatives reported on the experience of the state employee group. They indicated the preadmission certification requirement under the state group coverage has resulted in a 15% reduction in admissions per 1,000, and the impact was such that utilization dropped to the point where the state plan could have maintained its current rate structure for an additional year or added more benefits to the program with a minimal increase. They added, however, that the second opinion aspect of the program paid out more for second opinion consultations than was saved by avoiding surgery after the second opinion was rendered. The program resulted in fewer denials of payment for claims and a decline in the number of early admissions.

The Committee discussed the great concern that had been expressed by members of KMA in general, and family practitioners in particular, about the change in the second opinion program which was implemented this year. Formerly, the primary care physician would refer a patient to a surgeon if surgery was indicated. That opinion could be confirmed by the surgeon and the surgery performed, with the surgeon's opinion constituting the second opinion.

This year the contract was changed. Primary care physicians still refer the patient to a surgeon. If that

surgeon agrees that surgery is necessary, another opinion must be obtained from a second surgeon capable of performing the indicated surgery. If the third opinion is not obtained the patient will be held responsible for 20% of the charge. The Committee noted that in some areas there is only one surgeon available in the community and to get a second opinion the patient must either visit a physician in another area or have the physician come to the patient. Either is time consuming and inconvenient. The Committee feels that a number of surgical procedures could benefit from a second opinion from a medical specialist. Examples are pulmonary specialists giving second opinions concerning thoracic surgery and pediatricians giving second opinions as to the usefulness of tonsillectomies.

The Committee reiterated its current position of opposition to second opinions unless requested by the patient.

Office Surgery Experiment

The Committee reported to you last year on an experimental program of Blue Cross and Blue Shield which was to encourage physicians to perform certain procedures in their offices rather than in an outpatient surgical facility. If specific proceedings were performed in a physician's office, the physician would receive the full usual fee for the procedure with an additional $20 being paid for each procedure to cover overhead or supplies.

This year Blue Cross and Blue Shield reported that the experimental office surgery program had not achieved the usage that had been anticipated. While there is a definite move toward outpatient surgery, most of it is being done in a free-standing surgery center instead of the physician's office.

Some Committee members felt that the $20 paid for office surgery was not adequate to cover expenses of material and employee time used and felt more office surgery would be done if the fee was adequate to cover office expenses.

Blue Cross and Blue Shield intends to continue the experiment and to determine what steps might be undertaken to increase the amount of surgery performed in a physician's office.

Organ Transplants

Blue Cross and Blue Shield reported that effective May 1, 1985, coverage of heart, heart/lung, liver and pancreas transplants became available for Blue Cross and Blue Shield policyholders. The additional cost for such coverage is anticipated to be quite small because the majority of the risk is being reinsured.

HMO/PPO Penetration in Kentucky

The Committee continues to monitor the development of alternate payment and delivery systems in Kentucky. The Kentucky Legislative Research Commission surveyed competitive reimbursement plans currently approved to do business in Kentucky for the Sub-Committee on Health Care Costs of the Interim Joint Committee on Health and Welfare. We were fortunate to have the attorney for the LRC who had done the majority of work on that report meet with us and report the survey results.

She indicated that as of November, 1984, there were 10 health maintenance organizations (including those HMOs with multiple operational sites) and preferred provider organizations in existence or under active development in Kentucky. At least three more were in a preliminary development phase. In 1982, there were only three HMOs in existence in Kentucky. According to the report, the majority of these plans are being developed and managed by Kentucky corporations or health care providers and not by outside corporations or development firms.

HMOs and PPOs currently report enrollment of 118,600, or less than 5% of the private health insurance market in Kentucky. However, survey respondents estimated that by December of 1985, their enrollment would expand to approximately 12% of the private health insurance market.

Most HMOs and PPOs are concentrated in Fayette and Jefferson Counties and surrounding areas, with other activity occurring in northern, central and southeastern Kentucky. A substantial number of businesses have begun to offer alternate delivery and payment mechanisms for their employees. As of November, 1984, 950 businesses offered HMOs to their employees and 57 offered PPOs. Projections indicate that by November, 1985, those numbers will increase to 1,364 offering HMOs and 76 offering PPOs. The Federal Health Maintenance Organization Act of 1973 requires employers with 25 or more employees to offer federally qualified HMOs in their areas as an alternative to existing health insurance plans. Many businesses offer both HMO and PPO plans to their employees.

The study indicated approximately 1,000 Kentucky physicians have some sort of agreement with these types of programs. However, it is highly possible that one

physician might sign up in several programs and thus skew the figure somewhat.

While physician reimbursement mechanisms under HMOs and PPOs vary widely, the majority of the plans either obtain discounts, place physicians on a capitation schedule or establish a fixed payment schedule. The majority of these programs place physicians at risk for overutilization of hospital service. Most monitor hospitalization through preadmission certification, withholding a part of physician fees with a promise of a year-end bonus based on hospital utilization experience, or by reserving the right to cancel contracts for excessive or unnecessary hospitalization. While most plans state they do not currently penalize physicians for over-utilization or hospital services, most indicate that they intend to do so in the near future. Nearly all HMOs require deductibles or co-payments by consumers and nearly all also subject consumers to penalties for out-of-plan use. Hospital reimbursement arrangements vary widely with most plans receiving discounts from at least some hospitals.

While the HMO concept has been around for a number of years, it is just beginning to be perceived by employers as a mechanism by which benefit costs can be contained. It is doubtful that employees are fully aware of some of the more negative aspects of these systems such as a limit on choice of physician and hospital. While the HMO movement is enjoying unprecendented growth at the present time, it's difficult to tell whether that growth will be sustained after patients have long-term experience with them. However, some of the older, more established HMOs in the western part of the country have found the level of patient satisfaction to be high, evidenced by their tremendous growth in a relatively short period of time.

As Chairman, I appreciate the members of the Committee who have given so unselfishly of their time this past year and thank representatives of Kentucky Blue Cross and Blue Shield for their availability to the Committee.

Earl P. Oliver, M.D.
Chairman

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 heard discussion of the rising premiums of health insurance policies offered to the KMA membership. The Committee on Medical Insurance and Prepayment Plans has requested, on page 32.3, first paragraph of the Committee Report, guidance from the House of Delegates regarding the possible addition of cost containment alternatives to KMA members' policies.

Reference Committee No. 4 recognizes the need for further exploration of the reasons for rising insurance costs, and for specific recommendations regarding cost containment alternatives for KMA health insurance coverages.

Reference Committee No. 4 recommends referral of the Report of the Committee on Medical Insurance and Prepayment Plans to the Board of Trustees for study by the Committee on Medical Insurance and Prepayment Plans.

Report of the Committee to Investigate Changing Trends in Medicine

The Committee To Investigate Changing Trends In Medicine held three meetings this year: November 14, 1984; February 20, and June 26, 1985.

The charge to the Committee is to study and report on evolving delivery payment mechanisms; to study and report on demographic trends affecting medical practice; to study and report on ethical questions regarding financial considerations versus quality of life; to investigate trends in cost containment activity, and to determine, to the extent feasible, the role of organized medicine in this changing environment.

The Committee has adopted the objective of developing information which will help both individual physicians and organized medicine plan for the future. As medical care in this country changes, it is increasingly important that organized medicine be able to anticipate and plan for those changes if we are to continue to serve as the advocate for our patients. Last year we noted that change in the past often has been equated with progress because virtually every change seemed to expand the physician's ability to provide effective care and create new demands for medical services. However, some current developments may not be beneficial to all patients and physicians.

HMO and PPO Development In Kentucky

In 1973, Congress passed the Health Maintenance Organization Act, which required employers with 25 or more employees to offer federally qualified HMOs as an alternative to their existing health insurance plan. At that time, health maintenance organizations were seen by the Nixon Administration as a "New Wave" of health delivery where the emphasis was put on pre-

venting disease rather than treating acute diseases after their onset. In an era of government price controls, businesses looked upon HMOs as another federal mandate and were reluctant to do any more than absolutely necessary in order to encourage their employees to participate. The health maintenance organizations, at that time, were most often the closed-panel type, which meant that patients were limited in their choice of physician. Patients often had to travel fairly long distances to the facility where the HMO was housed. In addition, not many HMOs were in existence, and of those, very few were federally qualified. Thus, a large part of the population had no incentives to participate in an HMO nor, for the most part, any opportunity to do so.

In the past three years, HMOs and a derivative of that concept, the preferred provider organization, have enjoyed explosive growth throughout the nation. Long available on the West Coast, the HMO concept is now spreading throughout the country with a considerable amount of activity going on in the Midwest. Many of the federally qualified, nonprofit HMOs have now become investor-owned by major companies such as Humana, Hospital Corporation of America, National Medical Enterprises and American Medical International. Aetna, the largest insurance company provider of group health benefits, has undertaken a joint venture with Voluntary Hospitals of America to offer preferred provider arrangements. Metropolitan Life Insurance Company, according to a *Newsweek* article, has targeted at least $50 million for further alternate delivery system development while CIGNA, the nation's largest investor-owned operator of prepaid health plans, will spend $200 million to expand its business over the next two years. Nationally, it is estimated that 30 million people are now enrolled in or have access to HMOs. Some estimate that if current growth rates continue, three-fourths of the United States population could be enrolled in alternate delivery systems by the mid-1990s.

The Kentucky General Assembly, like many other state legislatures, has been concerned over the rate of increase in health costs in Kentucky. Legislators have the choice of either enacting more stringent controls with regard to health care costs or letting the marketplace determine the level of cost increase through competition. In an effort to determine the level of competition in Kentucky, the Subcommittee on Health Care Cost of the Interim Joint Committee on Health and Welfare sponsored a survey of "pro-competitive" reimbursement reforms in the health care industry in December of 1984. The Trends Committee was very pleased to have Carol A. Scheele, an attorney and legislative analyst with the Legislative Research Commission, meet with us in June. Ms. Scheele had developed the Subcommittee report and willingly shared the results of her findings with us. The following information is derived from her study. For the purposes of this report, the term "alternate delivery system" will be used to denote HMOs and PPOs as opposed to fee-for-service reimbursement.

There is active alternate delivery system development occurring in Kentucky. In November, 1984, there were 19 health maintenance organizations and preferred provider organizations in existence or under active development. In 1982, only three HMOs existed in the state.

While the current enrollment in alternate delivery systems comprises a relatively small proportion of the private health insurance market in Kentucky, it is anticipated that the market share of these organizations will increase. At this point, it is difficult to determine the extent of growth that will occur in the short term.

Most development of alternate delivery systems has taken place in Jefferson and Fayette Counties and their bordering counties. However, there is a good deal of activity now occurring in northern Kentucky and in those areas of the state that border large cities in Tennessee, Ohio and Indiana.

A larger number of businesses now find alternate delivery systems attractive and are offering them to their employees.

While a number of physicians have contracted with alternate delivery systems, it is difficult to estimate how many are involved. A large proportion of HMO physicians are consulting specialists. In addition, most systems do not require physicians to sign up with only one organization so that one physician may be affiliated with several alternate systems, resulting in a perception of wide-spread participation.

Physician reimbursement mechanisms vary widely, although most plans either obtain discounts, place physicians on a capitation schedule, or have fixed payment schedules. The majority of HMOs and PPOs place physicians at risk for over-utilization of hospital services. However, most report that physicians are not currently penalized for over-utilization of hospital services, but note that they expect to implement penalties in the near future.

Hospital reimbursement varies widely with most alternate delivery systems receiving some sort of discount from at least some hospitals.

Nearly all alternate delivery systems require de-

ductibles or co-payment by consumers, and almost every plan penalizes consumers for out-of-plan use.

A brief overview of the various organizations in existence was given to the Committee by Ms. Scheele and is summarized as follows.

Central Health Services, Inc. of Lexington is affiliated with Central Baptist Hospital. It began as a preferred provider organization with both physicians and hospitals and is a private for-profit corporation owned by Central Baptist Hospital and individual shareholders. It is governed by a Board of Directors comprised of members of the corporation, community representatives and hospital representatives. Eighty-five physicians and one hospital are reported to have agreed to participate. Geographic scope is largely Fayette County and its surrounding counties.

ChoiceCare is an IPA model health maintenance organization which is a nonprofit organization owned by physicians and governed by a physician Board of Directors. It is very actively seeking business in northern Kentucky. Currently, 88 physicians and three hospitals have agreed to participate. Its geographic scope is Kenton, Boone, Campbell, Grant and Pendleton Counties. It was reported that this organization is actively seeking to enroll Medicare patients who are now eligible for participation in HMOs.

HealthAmerica Corporation of Kentucky is a wholly owned subsidiary of HealthAmerica of Nashville, an investor-owned corporation comprised of a number of HMOs which were formerly nonprofit, federally qualified organizations. HealthAmerica is the second largest investor-owned HMO in the U.S. HealthAmerica Corporation of Kentucky operates in Jefferson County and surrounding areas. Because HealthAmerica is a federally qualified HMO, its rates are based on community experience; thus, it tends to have higher premiums than its competitors.

HealthAmerica Primary Care Network is also owned and governed by HealthAmerica Corporation of Kentucky. It is a primary care network model HMO and expects to become operational in January 1986. This was developed as an alternative to the staff model currently being used in Louisville and Lexington in an effort to try to entice employees who do not want to give up their current physician.

Humana Health Plan, Inc., doing business as Humana Care Plus, is now operational. The Humana plan is based on the incentive to businesses that if 80% of their employees join and use participating Humana Hospitals 75% of the time, Humana will guarantee that annual premiums for Humana Care Plus will rise no more than the Consumer Price Index. However, if those percentage factors for utilization are not met, reportedly, the rate increase is then based on the actual experience of the company, which is usually significantly higher. The concept is built around Humana Hospital utilization and is currently actively marketed in Jefferson, Bullitt, Oldham, Shelby, Hardin, Fayette and contiguous areas in Kentucky and Indiana.

HMO Kentucky, Inc. is a wholly owned subsidiary of Kentucky Blue Cross and Blue Shield and is governed by Kentucky Blue Cross and Blue Shield. As of the time the LRC report was developed, the program was not operational.

Independence Health Plan of Kentucky is a private for-profit corporation owned in the majority by the Lexington Clinic and in the minority by Independence Health Plan, a public for-profit entity. The program is now being marketed in Fayette, Franklin, Shelby and Madison Counties. Ninety-plus physicians in Lexington have agreed to participate. The plan utilizes primary care physicians in the patient's hometown with referral to Lexington Clinic for specialty care.

Maxicare Health of Ohio is an independent practice association model owned and governed by Maxicare Health Plans, Inc. (a public for-profit national HMO based in California), Maxicare Ohio, Inc. and Louis Krainler, Inc., (a multi-specialty group practice in Cincinnati). It is operational in three counties in northern Kentucky, four counties in southwest Ohio and one county in Indiana.

Medi-Plan, Inc. is a primary care network model, for-profit corporation owned by primary care physicians and governed by a Board of Directors. It plans to offer a PPO, traditional insurance coverage and an HMO, which is expected to be operational in early September. One hundred physicians and several hospitals have agreed to participate, but marketing has not yet begun. The plan is state-wide in scope.

Mountain Trails Health Plan, Inc. in Harlan, Kentucky, is an IPA model HMO, a private, nonprofit corporation governed by a fifteen-member Board of Directors comprised of business and professional persons. It was reported that this plan is more of an insurance company than an HMO, and it operates basically in eastern Kentucky.

Option 2000 is a hospital-only PPO, wholly owned and governed by Blue Cross and Blue Shield of Ken-

tucky. While the program is operational, it is not being aggressively marketed and is available basically only in the Louisville area.

Peak Health Plan is based in Cincinnati, Ohio, and is a primary care network model HMO, owned and governed by Peak Health Care, Inc., a Colorado for-profit corporation. It has 376 physicians and eight hospitals (three in Kentucky and five in Ohio), and is operating in the northern Kentucky; Cincinnati; and Dayton, Ohio, areas, according to the report.

The Physicians Alliance For Medical Excellence, Inc. was the first preferred provider organization in Kentucky. It began as a physician-only PPO and is a nonprofit corporation governed by a 15-member Board of Directors composed of physicians. It formed Commonwealth Health plan, which is an HMO, and has some affiliation with Surgical Care Affiliates and Hospital Corporation of America in Fayette County and surrounding areas.

Physicians Health Plan of Kentucky is an independent practice association model HMO developed by the Jefferson County Medical Society but now governed by private practice physicians under a management arrangement with Charter Med, Inc. Physician recruitment is now in process, as are hospital negotiations, but marketing has not been initiated. Approximately 500 physicians have signed on with the program, as have approximately 600 patients. The program will operate in Jefferson, Oldham, Shelby, and Bullitt Counties in Kentucky and Floyd, Clark, and Harrison Counties in Indiana.

Preferred Health Plan, Inc. in Louisville is a private, for-profit independent corporation governed by a Board of Directors comprised of physicians, hospital representatives and community participants. It is a PPO utilizing both hospitals and physicians and was developed in connection with the Voluntary Hospital Association, a group of not-for-profit hospitals. One hundred ninety-seven physicians and six hospitals are affiliated with the plan. Approximately 1,300 persons have been enrolled in Louisville and surrounding counties. It was reported that Louisville is a national test site for the development of the hospital-initiated PPO (HIPPO).

The University of Kentucky PPO is a physician and hospital, nonprofit organization developed by the University Benefits Oversight Committee in conjunction with Blue Cross and Blue Shield of Kentucky. University of Kentucky medical staff physicians and the UK Medical Center Hospital offer services to UK employees, Blue Cross and Blue Shield covered groups and state employees. Marketing is in progress with the scope of the program being central, eastern, and southeastern Kentucky.

Ms. Scheele also developed a set of criteria that physicians might want to utilize in evaluating various delivery systems for future participation. The Committee felt these were very well done, and they are attached to the end of this report as a separate item.

The Physician's Image

The public's perception of the profession is a very real issue today. There is a growing feeling that some action should be taken to enhance the profession's image. The question is, what activities would be most effective? The Committee felt that expensive, statewide advertising campaigns may well have little or no measurable positive results. We agreed that the most effective means of changing the public's opinion of physicians is through the actions of individuals and of KMA as an organization. KMA is undertaking a number of projects which we feel will have positive results. These include, but are not limited to, a project for physicians to go into elementary and secondary schools to discuss the impact of lifestyles on health and to promote wellness and self-esteem, the Kentucky Physicians Care Program for indigent patients; and a campaign to circulate pictures of missing children to physicians' offices to be posted where office personnel and patients can see them.

At the national level, the American Medical Association House of Delegates has been concerned with the issue of the physician's image, with the result being that the AMA is undertaking a multi-million dollar project to present the profession to the public in a more positive fashion. Louisville has been selected as a national test site to evaluate the effectiveness of some of the programs now being considered. A one-half hour film of practitioners in their daily routines will be aired in September. A follow-up survey will be done of a randomly selected segment of the public to measure the impact of this type of media campaign.

The AMA has been surveying the public over a number of years in an effort to get some sense of its perception of physicians in general.

In 1984, the AMA attempted to determine how much of a gap existed between the patient's perception of his or her own physician versus the profession as a whole. While the patient's image of his own physician was sharply better than that of the general physician population, the survey found that the image gap was great-

est in areas where the public's general image of the profession was most negative: fees, incomes and cost effectiveness; the M.D./patient interaction; and public faith in physicians. The most positive image of the profession, knowledge of medicine, showed a small image gap of only 13 points. Thus, the most negative perceptions are those least related to personal experience and therefore most related to secondary sources of information and hearsay. The task, it seems, is to develop public relations efforts that concentrate on positive personal experience on a more general basis. The AMA is doing additional research in this area, and hopefully some of these concerns will be addressed by the AMA image-enhancement campaign mentioned above.

Marketing/Advertising

All advertising is a form of marketing, but all marketing does not include advertising. That is a subtle distinction, yet one that many physicians tend to overlook, and one that is most important in today's competitive environment.

Richard Wright, M.D., Louisville, a member of our Committee, had undertaken a study with regard to physicians' attitudes on advertising and shared his findings with us. In the medical profession, the adverse effects of advertising stem from the early ads for tonics, cure-alls and other examples of hucksterism. That led to a somewhat strict and specific code of ethics with regard to medical advertising. In 1975, the Federal Trade Commission investigated the AMA regarding the AMA Judicial Council's position on advertising. The AMA code of ethics does not proscribe information being made available on a physician's training, limits of practice or other pertinent information, but does indicate that solicitation of patients through unsubstantiated claims is unethical. Other ethical considerations from a medical point of view are that medicine is not a trade and does not involve merchandise; compassion is essential for the physician/patient relationship; consumer understanding is limited and misinformation and unethical practices can happen.

Doctor Wright's survey of physicians in Kentucky resulted in a 40.55% response, indicating there was a good bit of interest in this topic. However, only 1% of those responding advertised or planned to advertise at the time the survey was done. The survey indicated that there was great concern among Kentucky physicians that the image of the profession would suffer if advertising became widely used.

In a survey done by the AMA in 1983, 17% of those physicians responding to the survey indicated that they felt it appropriate to list fees for a selected number of standard well-defined procedures for publication in newspapers, radio or television. This positive response represents an increase from 11% in 1982, and only 8% in 1978. Support also seemed to increase for listing fees in local directories and in the physician's office. However, nationally, the overwhelming proportion of physicians continue to reject listing fees in the media, and a solid majority do not favor the local area directory concept. Younger physicians were more than twice as likely as older physicians to favor listing fees on radio/television. However, four out of five younger physicians did not support fee listing in the media, according to the AMA study.

A survey of public opinion on the same issue, however, brings far different results. In a study done by Miller and Waller in Arizona, 68% of the consumers responding felt that it was proper for physicians to advertise, and that advertising would not lower their dignity or credibility. The majority of consumers in this study felt that the inclusion of services and fees in advertising would not reduce a physician's image, and about one-half of the sample indicated the need for price information. More older consumers felt that advertising would help them make more intelligent choices among physicians than did younger consumers. With regard to advertising media, over 70% felt that a professional magazine or newspaper was the most appropriate medium for physician advertising. Consumers thus seem to have a more favorable attitude toward advertising by physicians. Previous research has also shown that many professionals are concerned about marketing and feel that their image, dignity and credibility would be diminished as a result. The results of the Arizona study indicate that these fears may be exaggerated.

Similarly, a survey of the public done for the AMA in 1983 indicated that the public believed physician advertising is ethical and proper; will increase competition for patients; will not reduce physician professionalism; will help people choose a physician; will not affect existing patients' evaluations of the physician; and is not a sign of an unsuccessful practice. In a more negative sense, however, the public tended to feel that advertising will not be done by "good doctors"; will not reduce fees; will not promote better physician/patient relations; and will not be truthful and honest. While a majority disagreed, one-third of the public indicated they would think less of their physician if he/she ad-

vertised, and more than one-third continued to believe that physician advertising is unethical and improper.

As mentioned above, advertising is one way of marketing a physician's skills and availability. A number of other marketing areas were discussed. The Committee feels that implementation of some marketing techniques by physicians would certainly enhance not only the individual's practice but may go a long way towards enhancing the image of the profession as a whole. A simple definition of marketing in this context is treating patients the same way you would like to be treated were you in their place. In that regard, the Committee examined a marketing guide developed by the Pennsylvania Medical Society which gives an excellent overview of various activities that a physician may want to practice. The Committee felt it to be a worthwhile item and asked the Board of Trustees to approve the purchase of a number of these guides to be made available to members upon request at no charge. The guides have been ordered and should be available this fall.

One self-assessment tool that the Committee felt to be excellent was a patient satisfaction survey. These surveys ask your patient about their feelings regarding the medical care they received from you; the inconvenience in getting to the practice location; the difficulty in reaching a physician by telephone; the attitude of the office staff; the caring attitude exhibited by the physician and his or her staff; and other pertinent information. Each of our members had his or her office staff pass out these forms to 25 successive patients. The cards were returned to KMA and the overall results recorded. Each individual physician member could also obtain the results of his specific experience. The Committee found the survey format to be excellent and allowed patients to anonymously voice their opinion of the physician's practice. As a result, the Committee suggested that the survey format be duplicated in the "Communicator" for any member who wished to implement such a program in his/her individual office.

Enhancing Interprofessional Relationships

Many hospitals are finding themselves under severe financial restraints because of the growth of alternate delivery systems. The implementation of payment by diagnosis related groups for hospital services has resulted in fewer patients and shorter lengths of stay which have, in turn, resulted in a number of nurses being layed off or having their hours curtailed. In addition, the physician/nurse relationship in the hospital setting is sometimes strained. There is a growing movement nationally for nurses to become more independent in their careers, and legislation has been introduced for the past several Kentucky General Assemblies to allow nurses to practice medicine.

While some nursing groups have taken the lead in attempting to broaden the Nurse Practice Act, they may not be representative of the majority of nurses practicing in the state. The Committee felt that an enhancement of relations between physicians and nurses would be valuable.

It was suggested that the KMA Medical Staff Section be asked to discuss activities that would enhance and improve the interprofessional attitudes between physicians and nurses. Including nurses in hospital/medical staff sponsored CME programs might be useful. Inviting the nursing profession to participate in some of KMA's membership benefits such as the Annual Meeting, other CME programs, insurance plans offered through the Agency, and Credit Union membership eligibility were also discussed.

Survey of Young Physicians

This year, KMA, in consultation with the AMA Department of Survey Design and Analysis, designed a survey of young physicians (those under 40 years old) in Kentucky. The purposes of the survey were to collect opinions of both members and nonmembers of the Kentucky Medical Association's objectives and services, to ascertain reasons for membership or nonmembership in KMA, and to assess the impact of several trends on the practice of medicine in Kentucky. Eight hundred eighty-one surveys were returned for a response rate of nearly 40%. These are some of the more important findings of the survey:

Of the group surveyed, nearly three-fourths of both men and women physicians belong to specialty societies, but men physicians are more likely than women physicians to belong to the AMA, KMA or county societies. Clearly, KMA must find some way to bring more female physicians into membership if it is to truly represent all physicians. Both our Committee and the Membership Committee continue to try to find ways to increase membership among our female colleagues.

Nearly all respondents rated promoting better public understanding of medicine as important. Guiding the legislative process was rated as very important by 86.7% of the members and by 75% of the nonmembers. Practice management, marketing, continuing education and social and professional contact were rated somewhat

more highly by residents and women physicians.

Representation of physicians and the profession was clearly the most important reason for membership, while nonmembers assigned a somewhat greater importance to the tangible benefits offered by KMA. Likewise, tangible Association benefits provided a greater incentive for membership for residents than for other physicians. Women physicians indicated that important membership incentives were enhancement of referral patterns and a desire for specific Association benefits.

All respondents indicated that representation of physicians and liaison with the public media by KMA were extremely important. The *Journal* of KMA and the Annual Meeting were indicated as important by members more often than by nonmembers, possibly because nonmembers may tend not to attend the Annual Meeting.

In regard to health care issues, members indicated competition, government regulation and alternate delivery systems to be serious problems more often than nonmembers, while both groups noted that malpractice insurance costs and patients' inability to pay were extremely important issues. Residents are more concerned than anyone about liability insurance cost. Men were more concerned about government regulation and women somewhat more concerned about patients' inability to pay.

The survey results are extensive and will provide KMA with a roadmap for the future to help us provide the types of benefits, services and representation which are important to our members.

Health care in the United States continues to be an emotional and political issue of great importance. In the past few decades, hospital and physician expense protection, coupled with the creation of Medicare and Medicaid, provided substantial health insurance to millions of people including the elderly and the poor. That resulted in increased demand for medical care, stabilized payments for services, and promoted greater equality of access while posing no threat to the traditional organization and delivery of care.

Widespread insurance contributed to an explosive increase in health care costs through the 60s and 70s and early part of the 80s. However, the slow growth of the U.S. economy in the late 70s and early 80s was not accompanied by an equivalent slowing of health spending. Many fear that health care will continue to consume more of the gross national product, and that concern is shared by both government and the private sector.

Third-party involvement has tended to insulate patients from the pain of health care expenditures to the point that the patient will want, and the responsive physician will recommend, care even when the cost to society exceeds the benefit to the patient. Questions are now being raised as to whether the benefits to patients from additional spending are equal to the cost to society of providing the additional care.

The mood of the country is more materialistic and less egalitarian, with the result that the financial squeeze is being put precisely on those least able to deal with it: the poor, the very sick, the very old, and the very young. Physicians, as advocates for our patients, must take every precaution to see that the current preoccupation with cost does not result in other problems with regard to access. Pressures to be more financially prudent in the provision of care may well force physicians to make decisions that are contrary to the best interest of individual patients, even though they may make a great deal of sense from society's viewpoint as a whole.

As competition expands, there may be less incentive for the medical community to share findings which once were readily and freely shared by peers. Questions are already arising concerning scientific findings being made available by for-profit entities which fund certain experimentation. Will revolutionary ideas and breakthroughs in medical care be jealously guarded in the same manner as Ford might patent a breakthrough in fuel efficient carburetors? Victor R. Fuchs of Stanford University, writing in a recent *Wall Street Journal* editorial, states:

> Every revolution carries within it the seeds of its own destruction through excessive pursuit of one goal. The present revolution in health care financing is no exception. The problems it addresses are palpable: over-utilization of medical services; inadequate evaluation of new technologies; inefficient and inequitable cross-subsidization; and excess supplies of specialists and hospital beds. But the problems it may create are also significant: inadequate insurance coverage for millions; erosion of professional ethics as an instrument of control; loss of trust between physicians and patients; and a decline in medical research. The new challenge is to capture and preserve the benefits of the revolution while minimizing its costs.

Whether or not the growth and influence of for-profit entities such as Humana and Hospital Corporation of America will continue unabated to the point where three or four corporations will control the practice of medicine in this country, as some predict, remains to be seen. It is not enough today to keep up on the latest in

medical developments. Today's practitioner must also be aware of the techniques necessary to continue to retain the patients he or she now sees in a time of intense competition.

The unity and will of the profession is being tested as never before, and if we are to truly represent our patients, we must not lose sight of those principles which have made medical care in the United States second to none.

Charles C. Smith, Jr., M.D.
Chairman

(Ms. Scheele's article on Alternate Delivery Systems was published in the September Journal of KMA, pg. 575, and is not printed here as indicated.)

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next reviewed the Report of the Committee to Investigate Changing Trends in Medicine and wishes to commend the Chairman, Charles C. Smith, Jr., M.D., for his excellent report. We note that this report will be published in the November issue of the KMA *Journal*, and we strongly recommend it to the reading of all KMA members who wish to better understand our changing medical environment.

Reference Committee No. 4 recommends the Report of the Committee to Investigate Changing Trends in Medicine be filed.

Resolution L
Jefferson County Medical Society
Health Insurance Hotline

WHEREAS, third-party health insurance carriers and other alternate delivery systems are demanding ever-increasing controls on patient access and utilization of medical services, and

WHEREAS, such controls include mandatory second opinions, mandatory outpatient procedures, and prior certification for admissions, surgical procedures, extended lengths of stay, or use of emergency facilities, and

WHEREAS, the number of third-party carriers, self-insured administrators, and alternate delivery systems which require physicians to provide such administrative services is increasing at a geometric rate, and

WHEREAS, physicians who desire to practice high quality, cost-effective medicine find it increasingly difficult to maintain current, comprehensive knowledge of the myriad insurance plans, phone numbers, and utilization requirements involved in today's patient care, and

WHEREAS, third-party carriers over the past three years have experienced windfall profits due to continued rate increases in the face of declining demand for health services, now therefore be it

RESOLVED, that the Kentucky Medical Association petition and work with the Kentucky Insurance Commissioner to require that all Kentucky health insurance plans jointly create, fund, and staff a statewide clearinghouse offering physicians one central phone number for complying with preadmission certification, length of stay approval, and other utilization control requirements of all third-party carriers operating within the Commonwealth.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next discussed Resolution L, Health Insurance Hotline, submitted by the Jefferson County Medical Society. It was the feeling of the Committee that the complexity involved in the implementation of this proposal necessitates further study and planning.

Reference Committee No. 4 therefore recommends that Resolution L be referred to the Board of Trustees for further study and recommendations by the Committee on Medical Insurance and Prepayment Plans.

Resolution N
Jefferson County Medical Society
Automatic Direct Payment of Major Medical Benefits

WHEREAS, Resolution 1 (1983) clearly set forth the numerous problems which could be solved by automatic direct payment of major medical benefits by third-party carriers, and

WHEREAS, Resolution I (1983) stated:

> RESOLVED, that the Kentucky Medical Association urge Blue Cross and Blue Shield of Kentucky to encourage group master contracts which allow automatic direct payment (piggybacking) of major medical benefits to providers, and be it further
>
> RESOLVED, that the Kentucky Medical Association support Blue Cross and Blue Shield if it should approach the State Insurance Commissioner to allow needed changes in major medical certificates in order to make assignment of major medical benefits more widely available.

and

WHEREAS, the situation appears to remain unchanged, now therefore be it

RESOLVED, that the Kentucky Medical Association reaffirm Resolution I (1983), and be it further

RESOLVED, that the KMA Board of Trustees intensify its efforts to bring about the automatic direct payment of major medical benefits.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next considered Resolution N, Automatic Direct Payment of Major Medical Benefits, submitted by the Jefferson County Medical Society.

Reference Committee No. 4 recommends that Resolution N be adopted.

Resolution T
Board of Trustees
Patient Involvement in Insurance Procedures

WHEREAS, there is a wide variation in medical insurance coverage, benefits, claims filing procedures, and unique provisions of emerging care delivery systems and programs, and

WHEREAS, administrative procedures not directly incidental to medical care are a programmatic service to patients on the part of the physicians, and

WHEREAS, it is not possible for physicians to be aware of the procedures of all insurors or care delivery programs and many patients are similarly unfamiliar with specific provisions and claims procedures, and

WHEREAS, this situation often results in misunderstanding and negative feelings by patients and frustration and unfair blame directed at physicians, now therefore be it

RESOLVED, that the Commissioner of the Kentucky Department of Insurance be asked to require all medical insurors and care delivery programs to advise their insureds of patient responsibilities in the claims process and of any other unique patient obligations, and be it further

RESOLVED, that all members urge their patients to become familiar with their individual program requirements.

Recommendations, Reference Committee No. 4:

Reference Committee No. 4 next considered Resolution T, Patient Involvement in Insurance Procedures, submitted by the Board of Trustees. The Committee is sympathetic to the difficulties involved with patients understanding complex medical insurance coverages as well as the difficulties of physicians in coping with this problem.

However, Reference Committee No. 4 feels that more specific proposals should be made regarding a solution to this problem.

Reference Committee No. 4 recommends that Resolution T be referred back to the Board of Trustees for more specific recommendations.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 4 as a whole.

Mr. Speaker, I want to personally thank the members of the Reference Committee for their services to the House of Delegates to help formulate policy. Members of the Committee are: Thomas M. Jarboe, M.D., Lexington; Jerry W. Martin, M.D., Bowling Green; Lynn L. Ogden, M.D., Louisville; and William T. Watkins, M.D., Somerset. I would also like to personally thank Martha Coombs for her assistance in the preparation of this report.

REFERENCE COMMITTEE NO. 4
William R. Handley, M.D., Elizabethtown
Chairman
Thomas M. Jarboe, M.D., Lexington
Jerry W. Martin, M.D., Bowling Green
Lynn L. Ogden, M.D., Louisville
William T. Watkins, M.D., Somerset

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 5

John W. McClellan, Jr., M.D., Henderson
Chairman

Reference Committee No. 5 considered the following Reports and Resolutions:

37. Report of the Committee on Maternal and Child Health
38. Report of the Committee on Medicare and Other Governmental Medical Programs
39. Report of the Committee on Health Planning
40. Report of the Technical Advisory Committee on Physician Services (Title XIX)
41. Report of the Committee on Community and Rural Health
42. Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports
43. Report of the Subcommittee on Youth Education
44. Report of the Advisory Committee to CHR
30. Report of the Committee on Care for the Elderly, section on long-term care, beginning with the

last full sentence on the first page, and ending with the first full paragraph on page 30.2, **only**

Resolution D—Medicare Payment Areas (Harlan County Medical Society)

Resolution R—Kentucky Medical Assistance Program Funding Priorities (Robert N. McLeod, Jr., M.D.)

ITEMS FOR CONSENT

Reference Committee No. 5 reviewed the following items and recommends they be adopted or filed, as indicated, by the consent of the House, without discussion:

37. Report of the Committee on Maternal and Child Health—filed
38. Report of the Committee on Medicare and Other Governmental Medical Programs—filed
40. Report of the Technical Advisory Committee on Physician Services (Title XIX)—filed
42. Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports—adopted

Reference Committee No. 5 would like to thank all of the committees listed on the Consent Calendar for their efforts.

Report of the Maternal and Child Health Committee

The Maternal and Child Health Committee has continued to monitor closely the convoluted developments relating to the "Baby Doe" regulations.

The last occurrence detailed by the Committee in its 1984 Report was the June 1984 decision of the U. S. District Court for the Southern District of New York, which found those regulations issued by the Department for Health and Human Services (HHS), under Section 504 of the Rehabilitation Act of 1973, invalid. Since then, the government has appealed that decision to the U. S. Supreme Court, and the Court recently agreed to hear the case.

While those judicial proceedings were in progress, HHS embarked on a new statutory and regulatory course. In October 1984, the Child Abuse Amendments of 1984 were enacted. These amendments direct that the states, in order to receive federal funds under the original Abuse Prevention and Treatment Act, must consider the "withholding of medically indicated treatment" to handicapped newborns as medical neglect. Further, each state is required to implement programs and procedures for: coordination and consultation with designated individuals within hospitals; notification of cases of suspected child neglect; and authority for child protective services to pursue legal remedies to prevent the withholding of treatment.

In December 1984, HHS issued proposed rules (these are analogous to administrative regulations at the state level) to implement the Child Abuse Amendments. After numerous comments, hearings, etc., compromise rules were finalized in April 1985.

While there are several similarities between these rules and those attempted under Section 504 (*ie*, those which are soon to be reviewed by the U. S. Supreme Court), these new provisions do not call for federally controlled notices, hotlines, or investigations. Instead, emphasis is placed on the parents or legal guardian making decisions rather than on the Child Protection System (CPS) or the Infant Review Committee. The focus for the CPS representatives is one of assistance to the family, while the role of the Review Committee is to ensure that parents and guardians make informed decisions. The Review Committee can, however, seek Child Protection involvement when it feels such intervention is necessary.

The new rules require providers to render treatment except when the infant is chronically and irreversibly comatose; when treatment merely prolongs inevitable death; or when treatment is so futile as to be inhumane. HHS takes the position that the statute directs and allows the exercise of reasonable medical judgement but does not sanction decisions based on subjective opinions regarding a retarded or disabled person's future quality of life.

As initially proposed, the text of the rule contained many definitions to which physicians and others objected. With the exception of the terms "infant" and "reasonable medical judgement," those definitions have been deleted from the text and redesignated as interpretive guidelines which are set forth in an appendix to the final rule. It is important to note that these guidelines are neither binding rules of law nor are they intended to be used to prejudge the exercise of reasonable medical judgement.

Another change in the proposed rule relates to the Child Protection System. As revised in the final rule, the CPS is to obtain the name, title, and telephone number of the coordinator designated by the hospital and to update that information annually. CPS is also required to develop procedures consistent with state law for access to medical records and, when necessary, obtain court orders for independent medical examina-

tions. Under the final rule, infant care review committees are suggested but not required. Where they are established, the guidelines relative to their composition and operation are very similar to those which were used under the Section 504 proposals.

The implementation of all these programs and procedures must occur by October 9, 1985, in order for states to qualify for future grants to subsidize their child abuse programs.

The Committee hopes this brief summary will provide KMA members with some useful information regarding the "Baby Doe" issue.

Van R. Jenkins, M.D.
Chairman

Report of the Committee on Medicare and Other Governmental Medical Programs

The Committee on Medicare and Other Governmental Medical Programs has reviewed voluminous materials about the Medicare program, including the significant changes that have occurred this year. A comprehensive review of the program is not appropriate to the Report, but a summary review of what has occurred and what is likely to occur in the future with regard to Medicare is in order.

A continuing consideration of the program is crucial for two major reasons. The first is that the country's older population continues to grow, general longevity is on the increase, and the elderly are the major "consumers" of medical care. The second and interrelated reason is that, as the major purchaser of health care for the elderly, the government will direct both medical practice and social questions in terms of reimbursement for provider services through Medicare.

According to AMA figures, within the next 50 years, the population of those over 65 will double, and the population of those over 85 years of age will more than triple. Although the elderly in these categories comprise only 11% of the total population, they make over 30% of all patient visits to office-based physicians. Persons over 65 incur 3.5 times the per capita health care expenditures of persons under age 65.

Medicare expenditures have risen from $4.7 billion in 1967, the first year for which figures were available, to $58.86 billion in 1983, according to the Health Care Financing Administration. At the present growth rate, the program will cost $146 billion a year for the Hospital Insurance Trust Fund alone by 1995. Figures cited by the Congressional Budget Office indicate that this will result in a $56 billion deficit at current spending levels. Obviously, this trend is fiscally intolerable. Not only short-term, but long-term alternatives must be considered and effected in the very near future if the program is to survive.

Medicare's fiscal problems are the result of an evolution in medical technology, the public's expectations of medical care, and increased longevity due to medical and societal factors, all of which combine with a social and cultural self-perception. Medicare was based on a perception of unavailability of insurance for the elderly. When Medicare was enacted in 1965, it established the tremendous precedent of Federal Government involvement in medical care delivery, primarily through the control of reimbursement, but this carried a concomitant obligation for government responsibility to provide services promised and meet the public's demand. As the result of government involvement, Federal assistance for facility development, manpower expansion, and funding was intensified.

Increased Medicare coverage became expected by the elderly, coverage was extended to new population groups by Congress, and the program focused on quality rather than cost. However, the country's capacity to provide adequate resources did not keep pace with the increasing number of services and eligible recipients. Nearly 30 million persons are now enrolled in the Medicare program, as opposed to approximately 20 million in 1967; whereas, reimbursement has increased from $4.24 billion in 1967, to its current level of approximately $60 billion, according to HCFA figures.

In this situation, changes to the Medicare program are not urgent—they are inescapable. The dollar demands for services and the service demands by patients have been of crisis proportions for the past few years, and the future of the country's overall fiscal welfare is at stake. Serious social and political implications must be considered at the same time. Medicare-eligible citizens constitute a large and politically powerful force. From a social perspective, this group must feel that adequate Medicare coverage is their right because of financial contributions during their working years, even though the cost of Medicare services far exceeds the contributions made by recipients.

Congress is even now considering issues to revise the program but, unfortunately, most are of a very short-term nature. Appropriate private and public sector groups have given in-depth analysis to the problem, and suggestions for both short- and long-range revisions to

Medicare are myriad. Perhaps some of the most reasonable areas of study have been considered by the Council on Medical Services and the Council on Legislation, together with the Board of Trustees, of the American Medical Association. By definition, short-term proposals must be concerned with increasing program revenue and/or reducing costs.

To increase revenue, the AMA has suggested considering increasing the payroll tax rate to both employers and employees, increasing the alcohol and tobacco tax rates, taxing nonwage income of individuals above a certain threshold, and requiring that beneficiaries pay a portion of the Part A or hospital-service premium.

To reduce program costs, the AMA task group has suggested imposing a modified coinsurance on Part A costs with cost-sharing limits, raising the age of Medicare eligibility, and increasing the Part B premium based on the individual's income.

Issues which will have a longer-range positive effect on the program that should be considered by Congress include allowing individuals to establish health insurance Individual Retirement Accounts, modifying the program so that Medicare would apply only to the low-income or needy elderly, establishing Medicare coverage as a separate insurance program for those beyond retirement age who remain employed or have adequate personal income, and considering a system of family responsibility where payment from a decedent's estate for a portion of Medicare services in excess of the individual's prior contribution would be made, as well as a variety of combined Medicare/private sector approaches.

Significant political factors make congressional change to Medicare extremely difficult; yet, short-term repairs will only postpone the necessity of major revisions, the Congress should take immediate steps that would have long-term effects. In the near future, however, short-term changes may well only aggravate the current situation. These include the proposals being most closely scrutinized by Congress as of this writing.

Budget Committees in both Houses of Congress set spending levels for various Federal programs. Committees of jurisdiction must then equate the allowable program budgets to the specifics of each. As of this writing, both the Senate and the House have agreed on overall spending levels, including funds appropriated for Medicare, but no final agreement has been reached on a proposal for specific spending levels and various aspects of the Medicare program. Of most concern to physicians is a consideration of continuing the 15-month fee freeze imposed on physician reimbursement by Congress, which began in October 1984.

Figures available from the AMA, as well as regional offices of the HCFA, indicate that practical physician participation in Medicare has not decreased, nor has the overall assignment rate, even though the number of physicians who have signed an agreement to "participate" is relatively low. Physician reimbursement is a convenient target for reduction by Congress because the reimbursement formula is based on charges. Most other Medicare reimbursement areas are based on costs. The argument has been overwhelmingly made to Congress that a continued reduction in physician payments is grossly inequitable unless other cuts are made in all other areas of Federal spending. As of this writing, the issue remains unresolved, but probably will be decided momentarily.

The Committee intends to continue to monitor the changing trends in the Medicare program and, on behalf of the Association, to study and recommend support for logical, effective change. Further meetings with Federal officials and knowledgeable representatives of other organizations are intended. Even though quite frustrating, this continued analysis is fascinating and vital to our professional futures, as well as to the medical welfare of our elderly population.

James A. Baumgarten, M.D.
Chairman

Report of the Technical Advisory Committee on Physician Services (Title XIX)

The Technical Advisory Committee is created by Kentucky statute. The Committee is composed of five physicians nominated by KMA and selected by the Governor. The Committee is to provide technical advice to the Medical Assistance Advisory Council. KMA is represented on the Council by one physician. In addition, the Council has created a subcommittee that monitors and makes recommendations on the Medicaid Drug Formulary. Each of these bodies serves in an advisory capacity to the Kentucky Medical Assistance Program and, similarly, to the Secretary of the Cabinet for Human Resources.

Dwindling State revenues, increased eligible Medicaid recipients, and uncertainties caused by changes to the Medicare program have resulted in considerable difficulties for Medicaid this year. Program expenditures are budgeted based on a prediction of eligible recipients. Changes in certain Federal laws, as well as

a negative economic cycle, produced a greater number of recipients than had been allowed for in the budget, which resulted in a $16 million overrun this year. This deficit was resolved by shifting funds from other CHR programs, but projections for the next two fiscal years imply deficits of $50 million or more.

Medicaid is an entitlement program, which means that persons eligible must be provided with mandated services. The core Federal requirements do not place any ceilings on expenditures. Statutorily, Medicaid is linked with Medicare in the reimbursement area, where provider reimbursement formulas are delineated. As the reimbursement portion of Medicare changes, any revisions are reflected in the Medicaid Program. Obviously, a number of changes have taken place in Medicare, but implementation procedures, in many instances, have not been specified by the Federal Government, which has caused some difficulty in the Medicaid Program.

To confront these difficulties, the Cabinet for Human Resources has made two rather dramatic moves. The first was to consider changes to the Medicaid Drug Formulary from the standpoint of the method which is followed to add or delete drugs from the drug list. A special review team was appointed for this task and has recommended new Formulary procedures to the Secretary. In summary, these new processes are to place drug products on the list in order of therapeutic equivalence and the use of the least expensive therapeutically acceptable drug, removal of all drugs categorized as less than effective, denial of sustained-release products for placement on the list, and the use of single-drug regimens over multiple-drug doses when possible.

KMA was represented in these meetings and urged that physicians simply be allowed to use the broadest range of drugs possible adequate to treatment, within the reasonable bounds of available funds. The concerns of physicians, as well as pharmacists and pharmaceutical manufacturers, made development of these changes a negotiated result. Specific concerns could be debated infinitely, but the final determinant of drug list constitution will be the funds available to the drug program.

The second major step taken by the Cabinet was to appoint a special Program Review Team to review the Medicaid Program in its entirety and recommend broad changes. The Program Review Team was not to specifically consider projected deficits, although it will likely analyze this area. The Team's charge, by larger implication, is the long-range future and operation of Medicaid itself.

Medicaid has been the target, appropriately, of dissatisfaction among physicians for a number of years because of reimbursement levels and difficult, or what were perceived as inappropriate, Program operations. This has been true for all provider groups. Partially through Federal requirements, but also because of administrative and State legislative actions, services have continuously been added to the Program over the years. At this point, each of the services provided to Medicaid recipients is represented by a special interest group, each of which feels frustrated and dissatisfied. Solely because of the increase in cost of medical care, reductions in payments have occurred. The point has now been reached where the addition of services and reduction of payments, given the current operating procedures, cannot continue, and this situation is what the special Program Review Team must contend with.

As of this writing, the Team has not been finalized, but its representatives will be appointed from the business and labor communities, community leaders, third-party payors, legislators, consumers, and health care providers. KMA has nominated as candidates for the Team: President Charles C. Smith, Jr., M.D.; President-Elect Wally O. Montgomery, M.D.; and Chairman of the Board of Trustees Nelson B. Rue, M.D. The Team is to conduct its review and make recommendations to the Secretary by December 31, 1985. The obvious implication is that the Secretary intends some legislative use of the Team's recommendations.

During the year, the Committee considered a number of issues and reported to the Advisory Council at each of its quarterly meetings. Generally, recommendations to the Council relate to specific Program processes or problems encountered by individual physicians. While the Council members have been fairly sympathetic to the Technical Advisory Committee's recommendations, the Council is only advisory in nature, and from a practical perspective, must also limit its recommendations to the Medicaid Program in relationship to available funds.

At the last meeting of the House of Delegates, Resolution CC was adopted, and the Committee was charged to try to determine the amount of indigent care and Medicaid services that Kentucky physicians provide. Figures acquired from the Cabinet for Human Resources for the months of May and June, 1985, show that charges billed to KMAP by physicians were reimbursed at an overall average rate of 51.4%. Extrapolated over a one-year period, physician charges will amount to approximately $112 million, for which KMAP

will reimburse approximately $57.5 million. That leaves a difference of $54.5 million.

There are some qualifications to these figures. This payment represents an average of both in-patient and out-patient services. In-patient physician services are reimbursed at a rate of 100% of each service performed up to $20 and 35% of the remainder. A percentage payment for out-patient services cannot be extrapolated from the figures available.

The amount of nonMedicaid indigent services provided by Kentucky physicians is nearly impossible to determine for a number of reasons. The Federal poverty guidelines are well above Kentucky Medicaid eligibility requirements, which leaves a potentially large number of citizens of the Commonwealth who qualify as indigent. There are approximately 345,000 currently certified Medicaid recipients. Based on per capita income, the Cabinet for Human Resources estimates that there are approximately 450,000 nonMedicaid "indigent" citizens.

Figures developed by the Kentucky Physicians Care Operating Committee show that only about 4% of this figure, or 18,000 individuals, were certified as eligible indigents by the Kentucky Physicians Care program. It would not be reasonable to infer that the remainder of individuals are all being treated routinely by physicians somehow; however, the Operating Committee's figures also show that of those who were certified for the KPC program, most had seen a physician in the past year. For an in-depth consideration of indigent care, please refer to the Report of the Kentucky Physicians Care Operating Committee.

The problems of the Medicaid Program and the larger issue of the provision of indigent care, generally, are matters which must be dealt with from a long-range perspective. Indigent care provision and financing have been dealt with in several other states, and a number of suggestions are being considered in-state, which will, if not resolve the problem, at least deal with indigent care in the immediate sense. The broadest question, though, is social in nature. Very simply put, how much of its resources does Society want to devote to provide care to those who cannot afford it. The provision of "free" care is finite because costs are borne by some source indirectly. The use of different dedicated funding sources is likewise limited, because limits will ultimately be reached. The coming year and the next few years will witness radical attempts to answer these questions, but they will only be truly answered by a consensus of all segments of society.

As Chairman, I would like to thank the Committee members for their interest, and I would also like to thank the Board of Trustees for its assistance and ongoing support.

Harold L. Bushey, M.D.
Chairman

Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports

The Committee on School Health, Physical Education, and Medical Aspects of Sports held the Fourteenth Annual Medical Aspects of Sports Symposium with the University of Kentucky College of Medicine in Lexington, Kentucky, on April 29 and 30, 1985. The program attracted 1,100 registrants, including coaches, team physicians, and athletic trainers. This was the first year that the Symposium was mandated as a requirement for all head coaches in the high risk sports of football, baseball, basketball, soccer and wrestling by the State Board of Education.

The program consisted of lectures, seminars and workshops. The program is self-sufficient, with all expenses being paid by contributions from pharmaceutical and equipment manufacturers and by program registration fees. I would personally like to thank Doctor Bill Brooks and Al Green for their cochairmanship and the endless hours they spent in developing this program. I would also like to express appreciation to the University of Kentucky College of Medicine's Continuing Education Department for the staffing and implementation of the seminar.

The 1986 Medical Aspects of Sports Symposium will be held on June 13-14 in Louisville, and June 27-28 in Lexington, Kentucky, and a third seminar will be held in northern Kentucky, the date to be announced.

The 1985 State Boys' Football Playoffs were covered from the time of the district playoffs to the state championship by Committee members and other team physicians who offered their services and assistance to ensure that every playoff game in this state had medical coverage.

The Kentucky Medical Association and the Kentucky High School Athletic Association's Subcommittee on Athletes' Health had a meeting on May 23, 1985, and made a recommendation to the KHSAA regarding certification of coaches. That recommendation follows:

1. A coach shall not be permitted to coach a football, baseball, basketball, soccer or wrestling team

during a KHSAA-sponsored playoff or tournament unless he/she is certified under the following guidelines:

a. The individual demonstrates good moral character as evidenced by the absence of a conviction of a felony, an offense of violence, a theft offense, any offense involving drug abuse or sex offense unless the individual has demonstrated to the satisfaction of the Board of Education that complete rehabilitation subsequent to such conviction has occurred so that the individual can be considered at the present time to be of good moral character.

b. The individual has a demonstrated background in the sport to be coached, evidence of course work in the sport, and/or previous experience as an active participant.

c. The individual has health and medical certification based upon guidelines approved by the KMA Committee on School Health, Physical Education, and Medical Aspects of Sports.

2. Current coaches shall have one year to comply with the guidelines listed above.

3. This becomes effective for the 1986-87 school year.

The recommendation, after approval by the Kentucky High School Athletic Association's Board of Controls, will be presented by the Chairman to the State Board of Education for approval. We feel this is another area which helps ensure the best health care for the athlete in the Commonwealth of Kentucky.

The Sports Medicine Committee is also reviewing a bill for presentation to the KMA State Legislative Committee. This proposal would provide a means of funding for teacher athletic trainers in the schools.

The Committee members will continue their active participation in the Kentucky High School Athletic Association pre-season football clinics for coaches and officials. The presentation this year is entitled, "Condition and Athletic Injury Prevention."

The School Health Committee appreciates the cooperation of coaches, officials, and school superintendents in Kentucky who have been so helpful in continuing to monitor the safety of our athletes. I would like to personally thank all the members of the KMA School Health Committee and the KMA/KHSAA Subcommittee on Athletes' Health for their diligence in serving during this Associational year.

R. Quin Bailey, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the Committee on Health Planning

At the time this Committee's last Report was written, health planning activity in Kentucky was at a virtual standstill. However, the lawsuits which brought things to a halt have now been settled, and the development of a new State Health Plan (SHP) is underway.

Two technical advisory groups have been appointed, one dealing with long-term care and the other with acute care. Both have made recommendations to the Statewide Health Coordinating Council (SHCC) on the content of the SHP. As of this writing, the SHCC has met twice to review those recommendations.

The Committee has noted a growing emphasis on providing long-term care in other than an institutionalized setting. That is clearly accented by the SHCC's pronouncement that home health services "should be provided as a basic health care program in every area regardless of institutional care available." The SHCC further recommended expanding "home health services and other alternative services, including residential halfway houses, to reduce the dependency on institutional capacity."

Such recommendations must be viewed in conjunction with other governmental activity. On June 21, 1985, Governor Collins signed Executive Order #85-441, which imposed a moratorium on long-term construction until December 1, 1985. (We should note, parenthetically, that suit has been filed challenging the propriety of this action.) At the same time, the Secretary of the Cabinet for Human Resources signed an Administrative Order calling for appointment of a task force to completely reevaluate the state's Medicaid Program, which is currently spending over 40% of its budget on long-term care. The findings and recommendations of the task force are to be tendered on the same day that the moratorium is tentatively scheduled to expire.

All these things seem to indicate a move toward an integrated program to address future activity in the long-term care area.

To the extent that long-term care would be recognized as a custodial/social program, rather than being

categorized in a budgetary sense as "health care," the Committee felt changes were appropriate. The Committee noted that these costs dramatically inflate the dollar figures which are ostensibly related to health care delivery. It was suggested that many of those cared for in these settings are not medically handicapped but simply elderly people with no place else to go.

The Committee also considered the activities of the Acute Care TAG and applauded the efforts of Doctors Danny Clark and Bill Monnig who served on this advisory group.

Provisions of the 1983-1986 State Health Plan relating to acute care had prompted much of the litigation referred to earlier in this Report. The Plan had placed great emphasis on the designation of medical service centers, tertiary care centers, or area hospitals; the implementation of a capital expenditure limit for hospitals; and the delicensure of excess hospital bed capacity. The Acute Care TAG addressed all three of these issues and recommended that government-mandated hospital regionalization and the capital expenditure limitation be abandoned and that the matter of delicensure be tabled. As of this writing, the SHCC has not formally reacted to these recommendations, although there appears to be a strong chance that the concept of "swing beds" will be embraced as an alternative to the delicensure effort.

It should be noted that there was also emphasis on deinstitutionalization of services in the acute care area. Hospice, adult day care, and, again, home health were suggested as alternatives in this area.

Some Committee members expressed concern about the apparent absence of planning and oversight in the area of foster care. This was discussed at some length, and it is interesting to note that the General Assembly gave affirmative consideration to this issue during its recent Extraordinary Session.

The Committee will continue to monitor developments in this area. I would like to thank the members of the Committee and the KMA staff for their help in this regard.

Frederick A. Stine, M.D.
Chairman

Report of the Committee on Care for the Elderly Section on Long-Term Care, Only

There is a general question of the validity of personal and intermediate care as true medical care. Personal and intermediate care do, however, relate to long-term care and, properly or improperly, are associated with medical care. This association is strengthened because reimbursement for this care is made by Medicaid.

Given this situation, there is no question that all current beds that can generically be described as "nursing home beds" are filled. There is no valid way to determine, though, how many of those beds are necessary for medical reasons and whether more or fewer are needed. A larger issue is the actual medical question of personal and intermediate care and if such levels of care should even be considered in the category of medical need. The State Health Planning Council has developed a rather complicated formula to determine bed need, but it appears that this formula is based on cost rather than on actual need for care.

Resolution R
Robert N. McLeod, M.D.
Kentucky Medical Assistance Program Funding Priorities

WHEREAS, the Kentucky Medical Assistance Program continues to be plagued by financial deficits and cost overruns, as well as an increasing eligible patient population, and

WHEREAS, there exists a significant number of indigents who do not qualify for Medicaid but who have unmet medical needs which society has an obligation to meet, now therefore it

RESOLVED, that the Kentucky Medical Association finds that a significant portion of the Medicaid budget is consumed by long-term institutional care which is not medical in nature, and be it further

RESOLVED, that in this critical financial circumstance Medicaid resources should not be dissipated to satisfy social demands or replace familial responsibilities, but should be directed to medical priorities, and be it further

RESOLVED, that the Kentucky Medical Association support a restructuring of the Kentucky Medical Assistance Program budget so that primary medical services will be appropriately funded, and nonmedical services will not be allowed as a Program provision, and be it further

RESOLVED, that funds not expended on long-term care of a social nature be directed to basic medical needs.

Recommendations, Reference Committee No. 5:

Reference Committee No. 5 considered the Report of the Committee on Health Planning; the Report of the Committee on Care for the Elderly, section on long-

term care, beginning with the last full sentence on the first page, and ending with the first full paragraph on page 30.2, **only**; and Resolution R, submitted by Robert N. McLeod, M.D., jointly.

There was much discussion of Resolution R regarding the appropriateness of the Kentucky Medical Assistance Program developing a means test as a method of eliminating some of the nonmedical Program expenditures. The Committee noted that some of the aspects of long-term care discussed in the Report of the Committee on Health Planning and the referred section of the Report of the Committee on Care for the Elderly dealing with long-term care were addressed by Resolution R.

Reference Committee No. 5 recommends that Report No. 39 and Report No. 30, section on long-term care, beginning with the last full sentence on the first page, and ending with the first full paragraph on page 30.2, **only**, be filed.

Reference Committee No. 5 further recommends that Resolution R be adopted.

Report of the Committee on Community and Rural Health

The Committee on Community and Rural Health met on several occasions during the year. At the recommendation of the KMA Board of Trustees, the Committee studied child abuse and exploitation, specifically as it relates to physicians and how the profession can respond. Our first task was to determine who the experts were in the field and utilize their expertise to arrive at recommendations which were subsequently adopted.

The Committee began by reviewing the Child Abuse Reporting Law which is fairly explicit in explaining reporting requirements. The Committee understands the traditional confidential relationship between physician, patients, and their families; nonetheless, the Committee feels most strongly and supports the concept that reporting child abuse takes precedence over all other considerations. Reporting suspected child abuse or exploitation should supersede any previous confidential relationship the physician and patient/family may have.

The Committee believes physicians should take a leadership role in community efforts to reduce the growing problem of child abuse and exploitation. The Committee recommends that county medical societies work with police departments and local civic organizations to develop programs and provide speakers and information on the topic of child abuse. In every instance, the groups we worked with were pleased with KMA's interest in this particular area. They were not aware of our previous legislative activities in support of strict reporting laws. Physicians should be cognizant of the reporting law in KRS 199.335 which mandates that:

> Any physician, osteopathic physician, nurse, teacher, school personnel, social worker, coroner, resident, intern, chiropractor, dentist, optometrist, health professional, peace officer, mental health professional, or other person who knows or has reasonable cause to believe that a child is an abused or neglected child, shall report or cause a report to be made in accordance with the provisions of this section. Nothing in this section is intended to relieve individuals, agencies, or organizations of their obligation to report.

The law is clear, public sentiment is clear, and the profession supports the concept that at any point abuse is noted or suspected, it should be reported promptly.

The Committee notes that certain specialties may see suspected or obvious child abuse more often than other groups. Pediatricians, family physicians, internists, orthopedists, radiologists, and emergency physicians especially should be alert to this problem. Injury patterns, especially burns, certain fractures, patterned skin marks, and sexual abuse, should be watched for and can be easily identified. All emergency personnel, including physicians, nurses, paramedics, or EMTs, should be made aware of the reporting law. Additional scientific and educational sessions should be directed toward teaching health personnel how to recognize child abuse.

The Committee acknowledged the following "Myths v. Realities" of physicians reporting child abuse:

MYTHS	REALITIES
When a physician reports suspicions of child abuse, he/she will end up spending hours sitting in a courtroom waiting to testify.	The physician is rarely called upon to make a courtroom appearance. In most cases, the medical record or a written report is sufficient.
When a physician reports suspicions of child abuse, the child will be removed immediately from the home without any questions asked.	When a physician reports suspicions of child abuse, an investigation is begun by the Department of Social Services. A child is removed from the home only if the investigation determines this action is warranted.

When a physician reports suspicions of child abuse, a police car will be waiting for the parents upon their return home.	When a physician reports suspicions of child abuse, a social worker will contact the family in order to investigate the case. The police are involved as part of the investigative process and only take action if charges are filed.
When a physician reports suspicions of child abuse, he/she is making a direct accusation that a parent or another individual has perpetrated the abuse.	The physician who reports suspicions of child abuse is not making any accusations. He/she is merely alerting the proper authorities to his/her suspicions in order to protect the child.
In the courtroom, the physician bears the burden of proving that the abuse occurred.	The physician does not bear the burden of proof in a child abuse case; he/she is only responsible for documenting physical signs and symptoms that could be consistent with the physical child abuse.

After considerable study, the Committee developed the following recommendations, which were adopted by the Board of Trustees at its April 1985 Board Meeting.

1. The Committee recommended that one centralized telephone number for reporting child abuse throughout the Commonwealth be made available. That number should be printed on a rolodex card and mailed to all physicians in Kentucky.

After the Committee made the request, we were notified by the Governor's Office that the following toll-free number has been established for health care providers.

(800) 752-6200 CHILD ABUSE

The Committee commends the Governor for her prompt action and believes that the availability of a toll-free number and centralized reporting station will increase the number of reports. The rolodex cards are being mailed to all physicians, hospital emergency rooms, clinics, etc.

2. The Committee recommended that KMA provide space to appropriate groups in the Scientific Exhibit Hall at the 1985 Annual Meeting. A display table with pamphlets and various materials could be used as educational tools to assist physicians in diagnosing and reporting child abuse and exploitation.

The Louisville and Jefferson County Crime Commission and the Kentucky Alliance for Exploited and Missing Children, Inc., are developing and staffing the booth which will be located in the Exhibit Hall.

3. The Committee recommended to the KMA Board of Trustees that publications such as the "Communicator" and the *Journal of the Kentucky Medical Association* be used to circulate photographs and specific details on missing children.

The Committee has requested photographs and information from the National Center for Missing and Exploited Children and will submit pictures and information upon receipt.

4. The Committee recommended that a pamphlet be prepared by KMA entitled, "Recognizing and Reporting Child Abuse and Neglect." The pamphlet should be printed and mailed to all physicians, health departments, immunization clinics and emergency room departments.

The pamphlet is being produced and should be mailed before the Annual Meeting.

This report does not include warnings, injuries, or other signs which would assist in recognizing and reporting child abuse. That information is included in the pamphlet, which will be mailed to emergency and medical personnel in Kentucky. The pamphlet is designed to be used by physicians, nurses, health professionals, and other members of the physician's staff. In many cases, medical assistants, working in physicians' offices, may have information or observe certain adult behavior patterns toward children that would allow the assistant to caution the physician in advance of the possibility of abuse. Physicians should alert their staffs to the reporting law.

The Committee recommends that county medical societies study the formation of "Project Safe Place" in their communities. The program is a registered service mark of the YMCA of Greater Louisville and has been acclaimed nationally for its innovativeness in assisting troubled youth. A brief summary of the program is noted in a brochure as follows:

> YMCA's Project Safe Place is a unique concept that uses community resources to help troubled young people. Through fire stations, public libraries, police stations, YMCA's, gas stations, convenient neighborhood grocery stores, supermarkets, fast-food restaurants, and other business locations displaying the distinctive Safe Place logo, kids can get help . . . fast.

Anytime a youngster needs help, all he has to do is go into any business displaying the Safe Place and ask the employee for help. The employee then calls the YMCA Shelter House (open 24 hours a day). Shelter House staff contacts a trained, certified volunteer assigned to that Safe Place. Under normal circumstances, the volunteer arrives at the Safe Place site within 15 minutes of the call to Shelter House. Once the volunteer arrives at the Safe Place, he finds out what's troubling the youth and acts accordingly. If the child needs emergency shelter or counseling, the volunteer takes the child to the YMCA Shelter House, located at 1414 South First Street, where professional staff is available. These services are provided free of charge and all information is confidential.

The program has not been expanded outside of the Greater Jefferson County area, but according to officials of the program, it is under consideration. Interested physicians and county societies may contact:

Project Safe Place
YMCA Shelter House for Runaways
1414 South First Street
Louisville, KY 40208

Coordinator of Project Safe Place
Ms. Nancy Beck
(502) 635-5233

Traditionally, the Committee reviews immunization levels, testing for various communicable diseases, traffic safety and laws, and various other public health matters of interest to the Committee. The Committee was asked to appoint a special ad hoc committee to review several regulations dealing with tuberculosis testing. The regulations, as adopted, appeared initially to require additional testing for TB in patients in intermediate care facilities. Several complaints were received by KMA and one State Senator requested that KMA review the proposed Cabinet for Human Resources regulations. The ad hoc committee, after reviewing the matter, agreed that the regulations, as proposed, were appropriate with some minor modifications.

In early 1985, a prime-time TV program reported on the availability and hazards of the DPT vaccine, which subsequently drew a great deal of public attention. The Committee, after reviewing several options, recommended the adoption of positions of the American Academy of Pediatrics and a statement issued by the Lexington Pediatric Society. Later in the year, shortages of the DPT vaccine were alleviated. A copy of the Committee's recommendations is available at KMA headquarters.

Traffic safety continues to concern the Committee, and we urge physicians to support mandatory child restraints for children while riding in vehicles. In addition, the present Kentucky Motorcycle Helmet Law should be retained. The Committee will be pleased to assist the KMA Committee on Legislative Activities upon request. Repeal attempts of these laws should be opposed by KMA.

The Committee made an extensive effort to comply with the request of the Board of Trustees to involve this Association in the increasing problem of child abuse. Without assistance from several individuals and groups, the Committee's work could not have been accomplished. The following persons contributed to this study, and on behalf of the Committee and the Board of Trustees, we would like to thank each of them.

Mr. Ron Pregliasco
Louisville and Jefferson County Crime Commission
Kentucky Alliance for Exploited and Missing Children, Inc.

Ms. Kim Allen
Louisville and Jefferson County Crime Commission
Kentucky Alliance for Exploited and Missing Children, Inc.

Ms. Travis Fritch
Office of the Governor

Lt. Paul Reece
Youth Bureau, Louisville Police Department

Ms. Bonnie Mara
Social Worker

Ms. Ann Kleine-Karacht, R.N., B.S.N.
Dean, School of Nursing
Bellarmine College

While everyone worked very hard, it is appropriate to recognize Committee member Tim Costich, M.D., for his excellent work in developing the KMA pamphlet. Also, we thank George Nichols, M.D., Committee member and State Examiner, for the many hours he put into the Committee's efforts in guiding it to its final recommendations.

While the Committee has dealt extensively with child abuse, the reports and materials studied point to an equally disturbing problem—abuse of adults, especially the aged. The reporting laws are the same in

Kentucky for abused adults, and physicians should be vigilant in protecting their patients from abuse. The KMA Committee on Care for the Elderly is studying this problem.

Don R. Stephens, M.D.
Chairman

RECOMMENDATIONS:

1. The Committee recommends that county medical societies work with police departments and local civic organizations to develop programs and provide speakers and information on the topic of child abuse.
2. The Committee recommends that county medical societies study the formation of "Project Safe Place" in their communities.

Recommendations, Reference Committee No. 5:

The Reference Committee next considered the Report of the Committee on Community and Rural Health and wishes to commend the Committee for its efforts.

Reference Committee No. 5 recommends that Report No. 41 and its Recommendations No. 1 and 2 be adopted.

Report of the Subcommittee on Youth Education

The Subcommittee on Youth Education was organized at the specific request of Charles C. Smith, Jr., M.D., KMA President. The Subcommittee reviewed and evaluated numerous materials in order to develop a program of drug and alcohol interdiction for use in the elementary, middle and high schools.

The Subcommittee determined that it could better respond to its charge by dividing its intended audience into three categories: Kindergarten through Grade 4, middle and high school, and adult/parent groups. A separate program has been devised for presentation to each of these groups. Visual aids and literature in sufficient quantities for distribution are still being collected, and as soon as that process is completed, packets will be available for use by schools and KMA members.

The Subcommittee's goal is to have KMA physicians throughout the state actively involved in the presentation of these materials. Cooperation with local school districts, the KMA Auxiliary, parent-teacher organizations, the Fellowship of Christian Athletes, and other groups will serve to provide an integrated program of benefit to all the young people of Kentucky.

The Subcommittee wants to extend its appreciation to the KMA Board of Trustees for allowing acquisition of the movie, "Epidemic: Kids, Drugs & Alcohol," which is available through the KMA office for showing to middle and high school students.

As Chairman, I would like to thank all the members of this Subcommittee for their diligence in pursuing the tasks assigned to them.

R. Quin Bailey, M.D.
Chairman

Recommendations, Reference Committee No. 5:

The Reference Committee considered the Report of the Subcommittee on Youth Education and wishes to encourage KMA physicians to become actively involved in the presentation of materials being developed on drug and alcohol interdiction by the Subcommittee.

Reference Committee No. 5 recommends that the Report of the Subcommittee on Youth Education be referred to the Board of Trustees for further implementation and consideration of appropriate fiscal implications.

Report of the Advisory Committee to the Cabinet for Human Resources

The Advisory Committee to the Cabinet for Human Resources was established to provide a standing line of communication with the Secretary for discussion of matters of mutual concern. Generally, this group conducts its activities when critical issues arise that cannot be dealt with appropriately through routine Board of Trustees procedures and committee activities. The Committee consists of the President; President-Elect; Chairman, Board of Trustees; Secretary-Treasurer; and the Chairman of the Committee on State Legislative Activities.

Although no formal meeting was held this year, regular communication continued through telephone calls, correspondence, and informal meetings in Frankfort. Obviously, a primary concern has been budget issues relating to the Medicaid Program and other Medicare/Medicaid matters.

One informal meeting addressed a $50 million shortfall in the Medicaid Program and possible changes to the Medicaid Drug Formulary. Resulting from this discussion was the appointment by the Secretary of a special Medicaid Program Review Team, which was charged to analyze the Program and make suggestions for positive change. As of this writing, the Review Team has not been finalized, although the proposed completion date of its study is December 31. Further discussion of

specific Medicaid items can be found in the Report of the Technical Advisory Committee.

State government involvement in medical care programs will continue to be significant, primarily because of a reduction of government activities, which probably will result in less availability of care. This result is inevitable because of the relatively static nature of State revenues and the ever-increasing cost of providing care.

We appreciate the interchange that has occurred with the Secretary and look forward to its continuance.

Nelson B. Rue, M.D.
Chairman

Recommendations, Reference Committee No. 5:

The Reference Committee considered the Report of the Advisory Committee to the Cabinet for Human Resources and expressed its disappointment that more private practicing physicians who treat Medicaid patients were not included on the Special Medicaid Program Review Advisory Committee.

Reference Committee No. 5 recommends that the Report of the Advisory Committee to the Cabinet for Human Resources be filed.

Resolution D
Harlan County Medical Society
Medicare Payment Areas

WHEREAS, physicians with equal training and qualifications should not be discriminated against because of where they live in Kentucky, and

WHEREAS, it costs as much or more to practice medicine in nonmetropolitan areas as in metropolitan areas, and

WHEREAS, the government is now controlling medical fees, as well as allowables, which will more and more hurt rural areas because of the indexes upon which allowables are adjusted, and

WHEREAS, the Kentucky State Legislature has enacted legislation establishing Kentucky as a one-fee area with respect to Medicaid payments; yet, HCFA directs Medicaid deductibles and co-insurance for Medicare be paid on a three-area basis, thus causing inequities in combined Medicaid-Medicare cases, and

WHEREAS, the Kentucky Medical Association should promote fairness and help put an end to this discrimination, now therefore be it

RESOLVED, that the Kentucky Medical Association request the Governor to request Medicare to treat Kentucky as a one-fee area.

Recommendations, Reference Committee No. 5:

The Committee next considered Resolution D, submitted by the Harlan County Medical Society. The Committee recommends the adoption of the following substitute "Resolved," as recommended by the Board of Trustees:

RESOLVED, that KMA take all reasonable steps possible to encourage the Health Care Financing Administration and the Medicare fiscal intermediary to base Medicare payments to physicians in Kentucky on a single area formula.

Reference Committee No. 5 recommends the adoption of Resolution D, as amended by substitution.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 5 as a whole.

I would sincerely like to thank the other members of the Committee: C. Dale Brown, M.D., Paducah; E. Dean Canan, M.D., Louisville; Ardis D. Hoven, M.D., Lexington; and Charles B. Spalding, M.D., Bardstown; for their work. I would also like to thank Sharon Heckel for her assistance in the preparation of this Report.

REFERENCE COMMITTEE NO. 5

John McClellan, Jr., M.D., Henderson
Chairman
C. Dale Brown, M.D., Paducah
E. Dean Canan, M.D., Louisville
Ardis D. Hoven, M.D., Lexington
Charles B. Spalding, M.D., Bardstown

EDITORIAL NOTE: Unless otherwise indicated, the Reference Committee action on each Report and Resolution was accepted as printed here. Any opposing action taken is stated in discussion following the item.

REPORT OF REFERENCE COMMITTEE NO. 6
Donald J. Swikert, M.D., Florence
Chairman

Reference Committee No. 6 considered the following Reports and Resolutions:

12. Report of the KMA Medical Student Section Governing Council
13. Report of the KMA Resident Physicians Section
45. Report of the Judicial Council
46. Report of the Rural Kentucky Medical Scholarship Fund
47. Report of the Physician-Attorney Liaison Committee
48. Report of the Membership Committee
49. Report of the Committee on Constitution and Bylaws

50. Report of the McDowell House Board of Managers
    Resolution F—Residency Positions for Sale (Resident Physicians Section)
    Resolution H—Preventive Health—Tobacco Consumption (Resident Physicians Section)
    Resolution I—Tobacco Advertisements (Resident Physicians Section)

ITEMS FOR CONSENT

Reference Committee No. 6 reviewed the following items and recommends they be filed, by the consent of the House, without discussion:

46. Report of the Rural Kentucky Medical Scholarship Fund—filed
47. Report of the Physician-Attorney Liaison Committee—filed
50. Report of the McDowell House Board of Managers—filed

Report of the Rural Kentucky Medical Scholarship Fund, Inc.

For 39 years, the Rural Kentucky Medical Scholarship Fund, Inc. has provided financial assistance to medical students, who in return practice in underserved areas of the state of Kentucky.

In 1985, there are nine recipients entering residency programs, 24 are in the specialty training, and 18 are entering practice. There are 12 recipients whose loans were forgiven for serving in critical counties. There are 17 medical students whose loans are renewed for the 1985–86 academic year. At the present time, the amount of the money loaned is $5,000 per individual. There will be six new loans awarded.

Since we no longer receive any State support, our only source of income is contributions. A total of 436 solicitation letters were sent to Kentucky corporations, foundations, and past recipients, which resulted in a collection of $13,760.

The Board of Directors of the RKMSF is approving residencies in primary care only and requires that the physician reside in the county where he or she practices. The Board is hopeful that the physician will become a part of the community, be readily available to serve the needs of the people, and participate in community activities. The restriction of the residencies has created problems in that some recipients feel there is a need for specialists in the rural areas.

The Scholarship Program has proven to be a successful aid in securing physicians for rural areas. The Fund's success has been based on the dedication and perseverance of the members of the Board of Directors and the continued assistance and support of the Kentucky Medical Association.

Henry S. Spalding, M.D.
Chairman

Report of the Physician-Attorney Liaison Committee

The KMA-KBA Physician-Attorney Liaison Committee met formally on one occasion during the Associational year. The Committee reviewed the Amendment to Article VI of the Interprofessional Code which was adopted by the KMA House of Delegates and the Board of Governors of the Kentucky Bar Association in 1984. The Committee recommended that the revised edition be published in the *Journal of the Kentucky Medical Association* and the KBA's *Bench & Bar*. The Code was printed in the January 1985 edition of the two publications, and copies are available from KMA on request.

The Committee notes that most problems between members of the legal and medical professions occur when confusion results from scheduling depositions. The rules concerning the deposition process in Kentucky are not laws, but general agreements worked out by the legal and medical associations. When friction develops between the physician and attorney or an agreement cannot be reached, it is appropriate for the attorney to issue a subpoena to the physician. This procedure is clearly stated in the Interprofessional Code and the physician should not be offended by this action.

In Kentucky, depositions are generally taken in the physician's office at a time convenient to physicians and their office hours. Under most circumstances, the depositions are scheduled several weeks in advance. We find most physicians and attorneys observe the rules and maintain the proper protocol. However, physicians should be reminded that depositions are taken in the physicians' offices for their convenience and in most states this is not the case. In several states, these depositions occur at either the courthouse or in the attorney's office.

The Committee raised the issue of disability evaluations. There are people, both medical and nonmedical, trained to give evaluations with regard to compensation. There is a considerable market for more accurate determinations of disabilities, and well-trained personnel are needed to give evaluations and make recommendations. The Committee is of the opinion that

these decisions should not be left solely to Compensation Boards. The Committee plans to discuss this matter in more detail in the coming year.

We reviewed several complaints during the year and made recommendations to the parties involved. In most cases, communication had simply not taken place between the parties and problems arose. We suggest that attorneys and physicians personally schedule depositions, court appearances, and other meetings rather than having them made by office staff. Not only will this create better relationships between professions but will cut down on the number of problems that occur. The Committee is pleased to serve the Association and welcomes recommendations or suggestions which will make the Committee more effective.

Thomas M. Marshall, M.D.
Chairman

Report of the McDowell House Board of Managers

As predicted, this past year at the McDowell House and Apothecary Shop was characterized by increased utilization of this museum for diverse medical and medically related group functions. Daily visitors' tours increased by over 500 during this period. Considerable educational and training opportunities were made available to the staff and volunteers with much benefit to the operation of the House. Our staff participation and leadership in many regional and historical museum gatherings attest to the continued local and national recognition of the McDowell House and its operation.

Considerable activity by the Board has been expended in the promotion of the campaign for a permanent endowment fund by matching a $50,000 James Graham Brown Challenge Grant with an additional $100,000. As of June 1985, $57,000 had been pledged, and the Endowment Committee seeks to reach its goal by December 1985, by continuing active solicitation of both medical and nonmedical individuals and institutions.

The Board is delighted with and eagerly supports the KMA-KMA Auxiliary plans for a McDowell-Crawford formal ball to be held preliminary to the KMA Annual Meeting on Sunday, September 29, at the Galt House in Louisville. Proceeds from this fund-raising ball are to be used to meet the challenge grant drive.

As always, the KMA Auxiliary and its many local societies made significant contributions of both time, talents, and materials on projects, as well as funds in dollars, which amounted to a total of $11,094.51 for the year; $6,393 of this amount was designated as challenge grant money. Time does not permit the individual recognition of those who have lent support to the activities which are essential for our success. The Board of Managers advised and adopted appropriate "Collections and Loan Policy" for the House and, in addition, updated the "Policy and Purpose Statement" for the House.

Continued repair and maintenance expenses were accelerated by the June 1985 storm, which demolished the brick wall behind the Apothecary Shop Garden. Unfortunately, this is not covered by insurance and will necessitate considerable funds for restoration in the near future. This is to be coordinated, hopefully, with repair of deteriorated garden walks. It appears that excess income over the budget of $38,750 will cover some of these added maintenance and operational costs.

After years of increasing concern for the safety of the historical McDowell letters and papers, all of these documents have been preserved by a conservation specialist, and plans have been made for fireproof and temperature-controlled storage at the King Library at the University of Kentucky. This agreement permits access by interested parties to all of these documents in the future.

Lastly, the sad news of the death of long-time member of the Board of Managers, Dr. Glenn Dorroh of Lexington, Kentucky, was received in June of this year. His steady and active role in activities of the Board of Managers will be sorely missed in the future by all of those interested in the McDowell House and Apothecary Shop.

The Chairman gratefully acknowledges the time and energies devoted by members of the McDowell House and Apothecary Board of Managers and staff, as well as the confidence and support of the KMA Board of Trustees during the past year.

David W. Kinnaird, M.D.
Chairman

END OF CONSENT CALENDAR ITEMS

Report of the KMA Medical Student Section

This has been an exciting year for the KMA Medical Student Section at the University of Kentucky. Although awareness of the MSS has increased, we still

have work to do in order to further increase awareness and involvement.

In December 1984, Gwendolyn Cambron of the University of Kentucky and Carol Redel of the University of Lousiville served as Delegates to the AMA-MSS Interim Meeting in Honolulu. Some very important topics, such as financial aid, funding for graduate medical education, and the hepatitis vaccine for students were discussed. It also marked the first States' Leadership Conference, whereby state sections could learn how to increase their membership as well as become more active in their respective schools. A peer-to-peer recruitment drive was initiated at this first conference.

During the Annual Meeting in Chicago in June 1985, Gwendolyn Cambron was recognized for her work in recruiting 41 new members to the AMA. Six other students from the University of Kentucky also attended this convention, and testimony was given by Robin Peavler, a third-year student.

In addition to the recruitment effort, the chapter at U.K. was actively involved in sponsoring an impaired physicians seminar entitled, "Chemical Dependency and the Physician." The seminar was well attended by area physicians and there was a fair turnout by the students. We hope to make this an annual project of the MSS and hope to increase student attendance at future seminars. The U.K. chapter hopes the forthcoming year will be one of increasing growth and activity.

The KMA-MSS members at the University of Louisville School of Medicine had a relatively busy year. A very successful recruitment drive was held among the incoming freshman class, with Gary Reasor being chosen as the MSS representative and Milt Concannon selected as the insurance and financial services representative to the Class of 1988.

Carol Redel, the KMA-MSS Secretary-Treasurer, served as a Delegate to the AMA-MSS Annual Meeting in Chicago and testified before some of the Reference Committees on nutritional issues.

The focus of the energies of the KMA-MSS members at U.L. was in exploring ways to be more visible and influential in the formation of policies at the University. Current efforts are underway to organize a more active chapter.

KMA President Charles Smith, Jr., M.D., represented the Association at the Student Orientation Health Awareness Program where recruitment of members for the KMA and AMA was undertaken. Membership renewal is also underway in individual classes.

We hope that the KMA-MSS will increasingly become the organization of choice of our fellow medical students.

Gwen Cambron, U.K. Delegate
Brian Zachariah, U.L. Delegate

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the Report of the KMA Medical Student Section. The Reference Committee appreciates the work the Section is doing and would like to specifically recognize Gwendolyn Cambron for her work in recruiting 41 members to the AMA.

Reference Committee No. 6 recommends Report No. 12 be filed.

Report of the KMA Resident Physicians Section

Recognizing the growing interests and needs of resident physicians in the state, the KMA Executive Committee in the Spring of 1984 encouraged efforts to create a Resident Physicians Section. Several meetings were held throughout the state with representatives from the four residency programs to lay the groundwork for this Section. At the 1984 Annual Meeting, the KMA House of Delegates authorized the establishment of the KMA-RPS and in December 1984 the Board of Trustees approved the Section's Constitution and Bylaws as ratified by the resident members.

The organizational meeting of the Governing Council was held on February 7, 1985, at which time the KMA-RPS Officers were elected for the coming year. KMA President Charles C. Smith, Jr., M.D., spoke to the residents at this meeting and stressed the important role organized medicine plays in providing a voice for the physician—whether in training or in practice.

Six Committees were appointed by the Council to involve more residents in the work of the Section. They are: Environment of a Resident, Legislation and Leadership Development, Medical Education, Preparation for Practice, Preventive Medicine, RPS Structure, and Recruitment.

W. Mike See, M.D., AMA-RPS Vice Chairperson and Chief Surgical Resident at Mayo Clinic, spoke at the April 20 meeting of the Governing Council. Doctor See provided guidance on several aspects of residency involvement in organized medicine, particularly in regard to the structure of the AMA Resident Physicians Section and membership recruitment.

At the June 19 meeting of the Section, Mohan Chilukuri, M.D., Kentucky's Delegate to the AMA-RPS, reported on the activities that took place at the Annual Meeting in Chicago on June 14-17. We were fortunate to have Doctor Chilukuri of Madisonville, as well as Pam Nurenberg, M.D., of Lexington, represent the KMA-RPS at this session.

A major priority of the Section in its organizational year has been in the area of membership recruitment, since less than one-fifth of the residents in the state currently belong to KMA. Efforts have been undertaken to streamline the application process at the county level for in-training members and the Council would like to thank the Membership Committee of the Jefferson County Medical Society for simplifying the application form for interns and residents.

Council members promoted the KMA-RPS at the Housestaff Orientation Programs in June. In addition, Doctor Smith addressed the incoming residents at the University of Louisville, and Richard Hench, M.D., spoke to the housestaff at the University of Kentucky. Arrangements were also made with both schools to provide an extra ID photograph for the resident's use in submitting a membership application to the county medical society. We feel all these efforts will be helpful in increasing the number of resident members.

At the writing of this report, plans are being finalized for the first Annual Meeting of the KMA Resident Physicians Section to be held Saturday, August 3, 1985, at the Galt House in Louisville. An excellent program is being planned and we are hopeful that residents from across the state will attend.

On behalf of the members of the KMA-RPS Governing Council, I would like to thank the House of Delegates and individual members of the Kentucky Medical Association for their support and encouragement. Having been involved from the beginning in the organizational stages of this Section, I have been impressed with the commitment of the leadership of KMA in making the RPS a reality in such a short time. As resident physicians, we appreciate the opportunity to influence issues which will determine how we will practice medicine in the future.

Kristie G. Jones, M.D.
KMA-RPS President

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the Report of the KMA Resident Physicians Section. The Reference Committee would like to compliment the Resident Physicians Section for its interest and work during the Associational year and would in particular like to recognize the Trover Clinic Residency Program for having 100% participation in the KMA-RPS. We would also like to thank Kristie Jones, M.D., for her active participation and help during the Reference Committee hearing.

Reference Committee No. 6 recommends Report No. 13 be filed.

Report of the Judicial Council

The Judicial Council has met six times this Associational year and has fulfilled its Constitutional role as arbiter of the Association and overseer of ethical principles of conduct.

It is worthy to note that several questions involving advertising were considered by the Council this year, which are felt to be the result of two major factors. Notable Federal Trade Commission rulings and a number of lawsuits have resulted in there being little specific legal restriction on advertising. Secondly, increasing competition for medical revenues has produced "marketing" strategies that rely on vigorous advertising.

The Council has developed and disseminated voluntary advertising guidelines to each of the members and other interested groups and individuals, and the AMA Judicial Council has standing advertising policy. However, without any avenue for review of advertising and with the changing medical climate, it is predicted that questions relating to advertising will increase. The Council would urge the membership to consider any advertising only if it is accomplished in a dignified manner, does not hold out false claims, and does not make claims of superior capabilities. Copies of the KMA advertising guidelines are available on request.

Another trend observed by the Council this year has been increased consideration by KMA groups and the Board of Medical Licensure of overall practice patterns, rather than individual circumstances, and resulting corrective actions. As a result of Board of Medical Licensure activities and actions taken by county medical societies, the Council revoked the membership of five individuals, and other individuals will be reviewed in the coming months. It should be noted that with coterminous membership in county medical societies and KMA, any expulsion by the county results in automatic expulsion from KMA.

Because excessive fees may be deemed unethical, a number of items relating to charges were considered. In one particular case, the Council determined that fees

charged were excessive. In this circumstance, each individual service was charged for by line item, resulting in a total fee which exceeded a reasonable level. While the Council does not feel it appropriate to determine on what grounds physicians should base their charges, the overall fee should not be excessive.

The Council made three specific rulings this year associated with ethical practices. In one instance, a physician refused to provide medical information for insurance forms until his bill was paid in full. The Council determined this to be unethical. In a second instance, one member had contacted the Council regarding whether the recording of audiocassettes for patient use was ethical. The Council ruled this was not unethical and may even be of benefit to the overall regimen of care. In a third situation, the Council was requested to rule on the propriety of physician ownership of pharmacies. Although the Council recognized the potential for problems to occur in this area, it reconfirmed a previous ruling, as well as the standing AMA ruling, that physician ownership is not unethical if no patient exploitation occurs.

With the changing face of medicine, traditional relationships will obviously undergo transition, as evidenced by a situation the Council reviewed involving staff privileges. A physician had been under contract with a hospital for routine services, but his contract was not renewed. While he had staff privileges, they were of questionable value because, contractually, he could not perform any services in the hospital. The Council ruled that even though it may have seemed that staff privileges were at issue, the situation primarily revolved around the contractual question, and he had not been deprived of medical privileges, as such.

This year the Council reviewed a number of situations initiated by individual patient complaints, all of which were considered on a case-by-case basis. The Council would suggest that, while there is no indication that patient dissatisfaction is on the increase, a more aware, sophisticated, and "consumer conscious" public is giving the care they receive much closer scrutiny than in times past. As has been pointed out in the past, the majority of patient complaints grew out of a complete lack of, or very poor, physician-patient communication. Such misunderstandings are very often avoidable through the establishment of an open and mutual dialogue with patients.

The Council members would like to thank the House of Delegates for appointing them. We would like to give our sincere thanks, too, to the Trustees who have provided invaluable help in evaluating matters at the local level, and to the special consultants who have so ably assisted the Council's work.

J. Campbell Cantrill, M.D.
Chairman

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 considered the Report of the Judicial Council. The Reference Committee would like to emphasize that the Council urges the membership to consider any advertising only if it is accomplished in a dignified manner, does not hold out false claims, and does not make claims of superior capabilities. Copies of the KMA Advertising Guidelines are available at the KMA Headquarters.

Reference Committee No. 6 recommends Report No. 45 be filed.

Report of the Membership Committee

The Membership Committee has been actively involved in membership recruitment for the past several years. However, in May 1984 a demographic study of membership records indicated that while the number of members was rising, that increase was not keeping up with the growth of physicians in the state. Therefore, the Committee recommended that membership development be a full-time staff position within the Association, and that a number of new activities be undertaken to promote KMA membership to all nonmember physicians in the state.

Because of the strong commitment of the KMA Officers and Trustees in this regard, various programs have been initiated including direct mail campaigns; peer-to-peer contact; a Phonathon for nonrenewals; workshops for new physicians; establishment of a Resident Physicians Section; and student recruitment.

Direct Mail Solicitation

The major activity in our recruitment effort during the past year has been in the form of direct mail campaigns with 20 separate mailings to various segments of the nonmember population. Overall, total direct mail solicitations had a 6.2% response rate, with 835 nonmembers responding.

Initially, the thrust of our recruitment was directed at the nonmember under age 40, as demographic studies revealed that 72.5% of all nonmember physicians and 44% of all Kentucky physicians were within this age group. We feel we are beginning to reach this seg-

ment of the physican population. As of the writing of this report, 167 or 81% of all new members who have joined since January 1985 are under 40 years of age.

In addition to the under-40 segment, several mailings specifically targeted the resident and student population. The KMA House of Delegates at its 1984 meeting authorized the establishment of a Resident Physicians Section, and we are hopeful the new Section will provide a forum for the residents, 82% of whom are currently not members of KMA.

Two mailings targeted specific specialty groups. The Committee acknowledges the help of Billy Andrews, M.D., who wrote to nonmember pediatricians, and Marion A. Douglass, Jr., M.D., who wrote to nonmember family physicians, urging them to join KMA. Other specialty group leaders will be asked in the coming year to promote KMA membership to nonmember colleagues in their particular specialty.

Recruitment is also being done on an ongoing basis with physicians who are either newly licensed or have recently returned to Kentucky to practice. These nonmembers receive correspondence from the KMA President and their Trustee asking them to participate in organized medicine. During the past year, over 20% of all new members joined as a result of this effort.

In tracking nonmembers who responded to KMA mailings during the past year, over 66% of those who indicated an interest in the Association did join. As this was the first year that detailed tracking of recruitment efforts has been done, we hope to further develop this to enable the Association to better analyze membership recruitment and retention activities.

Peer-to-Peer Efforts

The Committee feels strongly that, to be effective, these efforts must be supported and supplemented with personal contact by the general membership. In a recent Association survey, almost half of those responding indicated that "suggestions from fellow physicians" was a very or somewhat significant reason for joining. With that in mind, members of the KMA Board of Trustees undertook a peer-to-peer campaign in January 1985 and personally contacted many of the nonmember physicians in their District. The Committee would like to thank those Trustees who participated in this effort to strengthen the membership, and urge every member to encourage fellow physicians who have not yet joined the Association to do so.

During the past year, Committee members obtained hospital medical staff lists from various communities and were asked to personally promote KMA membership to nonmembers in their particular hospital. It is hoped that more active recruitment of this group can be initiated during the coming year, especially in light of the establishment and recent organization of the KMA Hospital Medical Staff Section.

The Committee is well aware of its responsibility to also work toward the retention of KMA members. Along these lines, a membership retention campaign in the form of a Phonathon was conducted. Five Executive Committee members met on the evening of April 3 to call members who had not yet renewed their membership for 1985. Doctors Charles C. Smith, Jr.; Wally O. Montgomery; Nelson B. Rue; Richard F. Hench; and S. Randolph Scheen made a combined total of 104 contacts and successfully reached 74 physicians. Of that number, 72 percent indicated they would renew their membership. In comparing the renewal rate of the 30 physicians who could not be reached by telephone that evening (16.6%) to the renewal rate of the 74 physicians who were contacted (55.4%), it is apparent that the Phonathon was successful. The Committee also believes these personal contacts will have a positive effect on membership retention, as those contacted indicated their appreciation for the opportunity to talk with leaders of the Association.

Other Recruitment Efforts

The Membership Committee sponsored two "Preparing for Private Practice Workshops" during 1984–85 as a member benefit for new members who were entering practice. Approximately 50 physicians, spouses, and office managers have attended the two sessions, which were held in November 1984 and again in April 1985. As a direct result of the workshops, 12 physicians joined the Association because of the substantial registration fee reduction for KMA members. Representatives from KMA; its subsidiary companies; Blue Cross and Blue Shield of Kentucky; and local accounting, law, and marketing firms covered the steps necessary to establish and effectively manage a medical office. The Committee is grateful for the time and effort of these speakers who provided the program for the two-day Workshops.

Future recruitment efforts will be enhanced by the findings of a recent survey of young physicians in Kentucky. KMA, in consultation with the AMA Department of Survey Design and Analysis, surveyed 2,200 member and nonmember physicians under age 40. Over 880 physicians, or 40% of those polled, responded to the questionnaire. The survey was conducted, at no direct

cost to the Association, to collect physicians' opinions of KMA objectives and services, to ascertain physicians' reasons for membership or lack of membership, and to assess the impact of several trends on the practice of medicine in Kentucky. Although not specifically used for recruitment, the survey resulted in three applications for membership. In addition, several KMA committees will be utilizing the results of the survey in future program planning and membership development.

One finding of the survey was that representing physicians before legislative and governmental bodies, third-party payors, and other organizations was a very or somewhat important objective of the Association for more than 97% of the respondents. In addition, nearly all respondents (95%) rated promoting better public understanding of medicine as important. Practice management, marketing, and continuing education were rated somewhat higher by residents and women physicians.

Unified Membership

The KMA Board of Trustees at its December 1984 meeting referred the issue of Unified Membership for county, KMA, and AMA to the Membership Committee for study. The Committee met on February 27 to determine what effect this concept would have on the Association and to make a recommendation to the Board. The Committee reviewed considerable background material on this issue, including projections of membership and dues income if Unified Membership was instituted. In addition, the Committee heard reports from the Executive Directors of the Jefferson and Fayette County Medical Societies regarding the feelings of their members about this issue.

After lengthy deliberation, the Committee reached a consensus that the concept of required Unified Membership at the county, state, and national levels, although favored personally by each Committee member in attendance at that meeting, would not be in the best interests of the Association at this time.

However, the Committee agreed that KMA should work to increase AMA membership through continued recruitment efforts. During the past year, three mailings were directed at KMA members who are not members of the AMA. In addition, this subject has been the topic of several articles appearing recently on the "President's Page" of the KMA *Journal*. Currently, 57% of KMA Active members also belong to the AMA, an increase in KMA/AMA membership of 3.2% over this same period last year. Further efforts will be developed to encourage membership in all three levels of organized medicine.

Recruitment Results

During the period from July 1, 1984, through June 14, 1985, 299 physicians joined the Association. Of the number, it can be determined that 194 or 65% of the new members joined as a direct result of one of the recruitment efforts mentioned in this report. Taking into consideration the renewal of these new members over the next several years, the long-term effect of these efforts is quite significant.

The Membership Committee will continue to monitor the results of various recruitment activities and will continue to develop new programs to enhance membership retention and recruitment. On behalf of the Committee members, we urge your participation and involvement in these efforts. By encouraging your colleagues to join their county society, KMA, and AMA, our voice will be a much more viable instrument in dealing with the many issues facing medicine today.

Harold D. Haller, Sr., M.D.
Chairman

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 reviewed the Report of the Membership Committee. The Reference Committee would like to congratulate Doctor Haller on an excellent report and recognizes the amount of work that this Committee accomplished during the Associational year. The Reference Committee would specifically like to inform the House of Delegates that membership development now requires a full-time staff position filled by Diane Maxey. With her help, the Membership Committee has been able to accomplish membership efforts that before were impossible to undertake.

Reference Committee No. 6 recommends Report No. 48 be filed.

Report of the
Committee to Study the Constitution and Bylaws

The Committee to Study the Constitution and Bylaws met in order to consider proposals for modifying the dues provisions for "in-training members," and the addition of a provision allowing proration of dues on a quarterly basis for first-year active members.

These matters had previously been reviewed by the Membership and Executive Committees and the KMA Board of Trustees, and the revisions are hereinafter set

forth for your consideration as Recommendations 1 and 2.

In continuing its review of the KMA Bylaws relating to "life membership," the Committee determined that our current method for handling this matter remains effective and, therefore, warrants no change at this time.

Robert L. McClendon, M.D.
Chairman

Recommendations:

(Note: The following is set forth in legislative amendment format with the new proposal appearing in boldface and the language to be deleted set off by brackets and accented by lines through the wording.)

1. CHAPTER IX. ASSESSMENTS AND EXPENDITURES

   Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, $300, (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-obligated service shall pay $150 their first full year of membership); (2) Life Members, no dues; (3) Associate Members, $50; (4) In-Training Members, $20, **except that in-training members shall not be liable for dues during the first six months of their first postgraduate year in an approved residency program in Kentucky;** (5) Inactive Members, $25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be prorated on [~~the~~] **a quarterly** basis [~~of~~] **as determined by** the date of his application. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments, together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary-Treasurer of this Association as of the first day of January each year.

2. CHAPTER I. MEMBERSHIP

   Section 2.

   (c) Resident Physicians Section. Doctors of medicine or osteopathy who have complied with all pertinent regulations of the Kentucky State Board of Medical Licensure and who are serving in AMA-approved training programs in Kentucky shall be eligible for membership in the Resident Physicians Section of the Kentucky Medical Association. The Resident Physicians Section shall be governed by its own Constitution and Bylaws, which shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. In-Training members shall have the right to vote and **those paying dues shall** receive all publications of the Association. [~~,but~~] **In-Training members** shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates. The Resident Physicians Section will be represented in the KMA House of Delegates by one voting representative elected by the Governing Council of the Resident Physicians Section.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 considered the Report of the Committee on Constitution and Bylaws. Concern was voiced that In-Training Members, during the first six months of membership, for which dues are not owed, would not receive publications of the Association. The Committee ascertained, from testimony at the hearing, that the intent is that all In-Training Members will receive publications during their first six months.

Reference Committee No. 6 recommends that Recommendation 1 of the Committee to Study the Constitution and Bylaws amending CHAPTER IX, ASSESSMENTS AND EXPENDITURES, Section 1, be adopted.

Reference Committee No. 6 proposes new language to replace the sentence on lines 10 through 12 of page 49.2, Section 2(c) of the Constitution and Bylaws Committee Report as follows: **"In-Training members in good standing shall have the right to vote and receive all publications of the Association. In-Training members shall not be counted. . ."**

Reference Committee No. 6 recommends the adoption of the substitute amendment for CHAPTER I, MEMBERSHIP, Section 2.

Reference Committee No. 6 recommends that the remainder of Report 49 be filed.

Resolution F
KMA Resident Physicians Section
Residency Positions for Sale

WHEREAS, the reduction of Federal support for financing graduate medical education is producing the need for alternate ways to financially support residency positions, and

WHEREAS, the practice of offering unpaid residency/fellowship positions or residency/fellowship positions for sale or purchase will threaten the quality of trained physicians, now therefore be it

RESOLVED, that the KMA Resident Physicians Section and the Kentucky Medical Association disapprove of the concept of residency/fellowship positions which are unpaid or are for sale or purchase and develop a system to identify such programs and forward their names to the ACGME, and be it further

RESOLVED, that each training institution will be responsible for granting equal financial remuneration for trainees commensurate with level of training.

Recommendations, Reference Committee No. 6:

The Committee next discussed Resolution F, Residency Positions for Sale, submitted by the KMA Resident Physicians Section. After discussion, all were in agreement, including the KMA Resident Physicians Section representatives present, that the following changes be recommended: In the first Resolved, the words, "are unpaid or" be deleted, and that the entire second Resolved be deleted. The substitute Resolved will then read:

"RESOLVED, that the Kentucky Medical Association disapprove of the concept of residency/fellowship positions which are for sale or purchase, and that the KMA develop a system to identify such programs and forward notice of them to the ACGME."

Reference Committee No. 6 recommends the adoption of Resolution F as amended by substitution and deletion.

Resolution H
KMA Resident Physicians Section
Preventive Health—Tobacco Consumption

WHEREAS, there are competing interests between the tobacco industry and various anti-smoking groups, and

WHEREAS, the medical profession is charged with treating a variety of medical problems that have increased incidence among cigarette smokers, and

WHEREAS, the medical profession is also charged with the task of educating the public about the health risks associated with tobacco consumption, and

WHEREAS, passive smoke in public locations is annoying and an irritant to a large number of nonsmokers, and

WHEREAS, the KMA Resident Physicians Section supports AMA's current study of the issue of product liability and personal injury litigation as it pertains to tobacco use, now therefore be it

RESOLVED, that KMA publicly support policies that provide for the existence of "no smoking" areas in public gathering places, such as hospitals, physician offices, cafeterias, restaurants, hotels, and public transportation facilities, and be it further

RESOLVED, that KMA support public education programs that advise on the health risks associated with tobacco consumption, and be it further

RESOLVED, that the KMA and KMA-RPS restrict smoking during meetings and conferences by providing designated smoking areas, and be it further

RESOLVED, that KMA provide information and assistance to people interested in quitting smoking, and be it further

RESOLVED, that those resolutions herein that are not current policies of the AMA-RPS be introduced by the Kentucky Delegation to the AMA-RPS at the 1985 Interim Meeting of the AMA-RPS.

Recommendations, Reference Committee No. 6:

The Reference Committee next considered Resolution H, Preventive Health—Tobacco Consumption, submitted by the KMA Resident Physicians Section. After much discussion, there was unanimous support of the Resolution except for the words "and assistance" in the fourth Resolved. Therefore, Reference Committee No. 6 recommends the following substitute wording in place of the existing fourth Resolved:

"RESOLVED, the KMA provide information to people interested in quitting smoking, and be it further"

The Committee felt that this would avoid duplication of existing programs such as those offered by the Amer-

ican Heart Association and the American Cancer Society.

Reference Committee No. 6 recommends adoption of Resolution H as amended by deletion.

Resolution I
KMA Resident Physicians Section
Tobacco Advertisements

WHEREAS, tobacco ads have inundated the national magazine media, and

WHEREAS, many of these depict male and female models in a sexy, athletic and "chic" manner, and

WHEREAS, most adult smokers started smoking in their teens, when they are most vulnerable to external pressures and when they are attempting to appear as adults, now therefore be it

RESOLVED, that the KMA-RPS and KMA disapprove of the practice of advertisements of tobacco products, particularly those that glamorize the usage of tobacco products, and be it further

RESOLVED, that the Kentucky Delegation to the AMA-RPS introduce a resolution to this effect at the Interim Meeting of the AMA-RPS in December, 1985.

Recommendations, Reference Committee No. 6:

Reference Committee No. 6 next considered Resolution I, Tobacco Advertisements, submitted by the KMA Resident Physicians Section. There was much discussion that indicated that the intent of this Resolution was to bring pressure on the tobacco industry to influence changing the way it depicts tobacco usage and was not intended to dictate the specific format of advertisement. The Committee heard unanimous support of the intent of the Resolution. However, there was concern over the appropriateness of instructing the Kentucky Delegation to the AMA-RPS. Therefore, the Committee recommends that the following substitute wording be adopted in place of the existing second Resolved:

"RESOLVED, that the KMA support the Kentucky Delegation to the AMA-RPS should it introduce a Resolution to this effect at the Interim Meeting of the AMA-RPS in December, 1985."

Reference Committee No. 6 recommends the adoption of Resolution I as amended by substitution.

Mr. Speaker, I recommend the adoption of the Report of Reference Committee No. 6 as a whole.

Mr. Speaker, I would like to personally thank the members of the Reference Committee for their interest, time, and help on the issues discussed and formulation of this report. Members of the Committee were: James M. Bowles, M.D., Madisonville; Dennis B. Kelly, M.D., Lexington; Cecil D. Martin, M.D., Carrollton; and Willis P. McKee, Jr., M.D., Frankfort. I would also like to personally thank Joanie Banks for her expert assistance in preparing this report.

REFERENCE COMMITTEE NO. 6

Donald J. Swikert, M.D., Florence, Chairman
James M. Bowles, M.D., Madisonville
Dennis B. Kelly, M.D., Lexington
Cecil D. Martin, M.D., Carrollton
Willis P. McKee, Jr., M.D., Frankfort

Board Chairman Rue was recognized and introduced the following Resolution on behalf of the KMA Board of Trustees:

Resolution X
Board of Trustees
Health Department Medical Care Delivery Program

WHEREAS, the Department for Health Services of the Cabinet for Human Resources is soliciting local and district health departments to participate in a demonstration project to provide acute ambulatory services through local and district health departments, and

WHEREAS, this Association only received full documentation of this project within the last 10 days and solicitation of health departments for participation began on September 5, and

WHEREAS, a detailed review of the proposal causes concerns with regard to the medical welfare of those served, as well as the realistic financial possibilities of success, and

WHEREAS, this Association shares a concern equal to the Bureau for Health Services for care of the indigent, as well as an equal commitment to resolving that need, but by a more realistic method, now therefore be it

RESOLVED, that KMA opposes the Bureau for Health Services current proposal to provide acute ambulatory services through health departments because the program appears to be inefficient, medically ineffective, and would provide questionable quality of care, and be it further

RESOLVED, that this Association finds the program unrealistic because a project that will result in unpredictable costs is being attempted while standing pro-

grams of the Commonwealth are being underfunded, and be it further

RESOLVED, that KMA is opposed to any governmental care delivery program that does not require acute medical care provided or directly supervised by qualified physicians, and be it further

RESOLVED, that if implementation of this program is pursued, KMA request formal input into its monitoring process to determine the level of quality being provided, and be it futher

RESOLVED, that KMA continue to pursue reasoned, cooperative solutions to indigent medical care delivery, together with all responsible public and private efforts.

A motion was made, seconded, and carried to adopt Resolution X.

Election of Officers

G. Randolph Schrodt, M.D., Louisville, Chairman of the Nominating Committee, presented the slate of nominees for general officers and for AMA Delegates and Alternate Delegates, and each was elected by acclamation:

President-Elect	Richard F. Hench, M.D., Lexington
Vice President	Donald C. Barton, M.D., Corbin
Delegates to the AMA (January 1, 1986 to December 31, 1987)	Fred C. Rainey, M.D., Elizabethtown
	Donald C. Barton, M.D., Corbin
Alternate Delegates to the AMA (January 1, 1986 to December 31, 1987)	Wally O. Montgomery, M.D., Paducah
	Harold L. Bushey, M.D., Barbourville

Doctor Schrodt then submitted the following nominations for the offices of Trustee and Alternate Trustee on behalf of the District nominating committees:

Second District Trustee	Albert H. Joslin, M.D., Owensboro
Second District Alternate	John W. McClellan, M.D., Henderson
Seventh District Trustee	Cecil D. Martin, M.D., Carrollton
Seventh District Alternate	O. M. Patrick, M.D., Frankfort
Ninth District Trustee	Kelly G. Moss, M.D., Maysville
Ninth District Alternate	Robert L. McKenney, M.D., Falmouth
Tenth District Trustee	Preston P. Nunnelley, M.D., Lexington
Tenth District Alternate	Thomas K. Slabaugh, M.D., Lexington
Thirteenth District Trustee	Jerald M. Ford, M.D., Ashland
Thirteenth District Alternate	Charles T. Watson, M.D., Ashland
First District Alternate (one-year term)	James S. Gwinn, Jr., M.D., Paducah

A motion was made, seconded, and carried that the above slate of nominees be elected.

The new President-Elect was escorted to the podium by Past Presidents Paul Parks, M.D., and Carl Cooper, Jr., M.D.

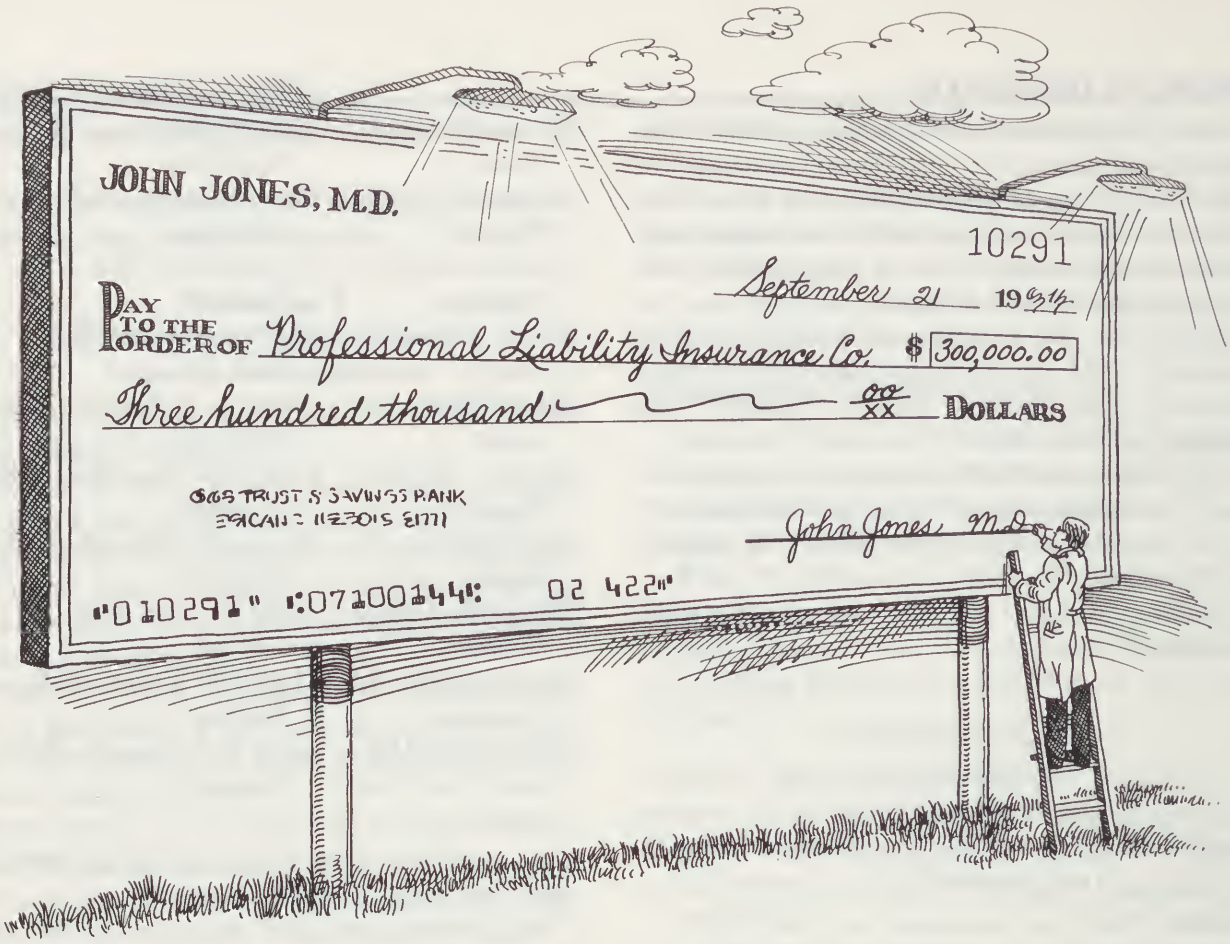
Election of 1986 Nominating Committee

The following physicians were elected by the House of Delegates to serve as the Nominating Committee for the 1986 Annual Meeting:

Paul J. Sides, M.D., Lancaster, Chairman
James S. Brashear, M.D., Central City
William D. Pratt, M.D., London
Mary L. Wiss, M.D., Pikeville
Stuart G. Yeoman, M.D., Bowling Green

It was announced that the Board would hold a reorganizational meeting on Thursday at noon.

Doctor Campbell adjourned the 1985 session of the House of Delegates at 8:15 p.m.



A Sign of the Times?

In 1983, 22 physician-owned professional liability insurance companies were forced to raise their premiums an average of 17 percent. At that rate, high-risk insurance coverage that cost $63,000 in 1983 could top $300,000 in just ten years.

These costs are leading to an affordability crisis which affects everyone. Physicians are concerned about rising premiums, exorbitant awards and continued insurance availability. Patients pay the price in increased costs and limited access to care.

Liability problems exact a high toll on physicians—in time and money, and even on their health. Some have been forced into early retirement; others have modified their practices to avoid high-risk procedures.

There is help. The American Medical Association's Special Task Force on Professional Liability and Insurance has developed an ambitious plan of action to respond to the crisis. This includes reviewing tort reform, working with the nation's policymakers to address the issue, promoting state coalitions to deal with the problem, distributing patient information materials and instructing physicians on how to avoid lawsuits.

If you want something done about the professional liability problem, become part of the solution: join the AMA.

For more information about membership, call toll-free 800/621-8335 (in Illinois, call collect 312/645-4783), or return this coupon to:

The American Medical Association

Division of Membership
535 North Dearborn, Chicago, Illinois 60610

☐ Please send me AMA membership information.
I am a member of my county medical society.

Name

Street

City State Zip

County

14-063

1985 CONSTITUTION AND BYLAWS OF THE KENTUCKY MEDICAL ASSOCIATION

CONSTITUTION

Article I. Name of the Association
Article II. Purpose of the Association
Article III. Component Societies
Article IV. Composition and Meetings of the Association
Article V. Officers
Article VI. House of Delegates
Article VII. Districts, Sections and District Societies
Article VIII. Board of Trustees
Article IX. Funds and Expenses
Article X. Referendum
Article XI. The Seal
Article XII. Amendments
Article XIII. Definitions

Article I. Name of Association

The name and title of this organization shall be the Kentucky Medical Association.

Article II. Purpose of the Association

The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge; the advancement of medical science and charity; the evaluation of the standards of medical education; the enactment and enforcement of just medical laws; the promotion of friendly intercourse among physicians and the guarding and fostering of their material interests; the protection of the members thereof against unjust assaults upon their professional care, skill or integrity; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

Article III. Component Societies

Component societies shall consist of those medical societies which hold charters from this Association.

Article IV. Composition and Meetings of the Association

The Association shall consist of the members of the component societies, but the House of Delegates shall have authority to adopt such bylaws regulating the admission and classification of members as it may deem advisable. The Association shall hold an Annual Meeting and such Special Meetings as may be called pursuant to the bylaws.

Article V. Officers

Section 1. The officers of this Association shall be a President, a President-Elect, a Vice-President, a Secretary-Treasurer, a Speaker and Vice-Speaker of the House of Delegates, a Trustee and an Alternate Trustee from each district that may be established; and such other officers as may be provided for in the Bylaws.

Section 2. The eligibility, duties and terms of office of all officers of the Association shall be as prescribed in the Bylaws.

Section 3. All officers shall serve until their successors have been elected and installed.

Section 4. All officers shall be elected by the House of Delegates at its Regular Session and shall take office on the last day of the Annual Meeting.

Article VI. House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association and shall have power, by a two-thirds vote of all the delegates present at that session, to adopt bylaws to carry out the provisions of this Constitution and to provide for the government of the Association in any other manner not inconsistent with this Constitution. It shall meet in Regular Session, annually during the Annual Meeting of the Association, and may be called into Special Session under such conditions as may be prescribed in the bylaws.

Section 2. Delegates shall be members of and elected by component county societies in such a manner as may be provided in the Bylaws. Officers of the Association, Delegates and Alternate Delegates of the American Medical Association and five immediate Past Presidents shall be the ex-officio members of the House of Delegates and entitled to vote. All other Past Presidents and Vice-Presidents and Past Chairmen of the Board of Trustees shall be ex-officio members of the House. They shall have the right to speak and debate on the floor of the House but shall not have the right to make a motion, introduce business or an amendment, or vote.

Section 3. The House of Delegates shall elect a Speaker and a Vice-Speaker, one of whom shall preside during the meetings of the House of Delegates. The presiding officer shall not be entitled to a vote except in the event of a tie.

Section 4. The House of Delegates shall be the final judge as to the qualification of its members.

Article VII. Districts, Sections and District Societies

The House of Delegates shall divide the state into Districts composed of one or more counties, for administrative purposes. It may also provide for a division of the scientific work of the Association into appropriate Sections, and for the organization of such District Societies, composed exclusively of members of component societies, as will promote the best interests of the profession.

Article VIII. Board of Trustees

The House of Delegates shall make provision in the bylaws for a Board of Trustees composed of one Trustee from each District and such of the other officers of the Association as the House may deem appropriate, which shall be charged with the general direction of the Association's affairs during the interim between meetings of the House. The House may delegate such powers to the Board of Trustees as are not specifically required by this Constitution to be exercised by the House, and may limit the Board's powers to such extent as it may determine to be necessary or desirable, provided, however, that in no event shall the Board of Trustees have power to commit the Association to any course of action which is contrary to or at variance with any policy established by the House of Delegates.

Article IX. Funds and Expenses

The House of Delegates shall provide funds for meeting the expenses of the Association by such methods and from such sources as it may select. Funds may be appropriated by the House of Delegates to defray the expenses of the annual session, for publications, and for such other purposes as will promote the welfare of the Association and the profession.

Article X. Referendum

The membership of the Association, by written petition signed by not less than 10% of the active membership, may obtain a referendum on any question pending before the House of Delegates. The Secretary-Treasurer, upon the presentation of such a petition to him shall cause the question to be submitted to the active membership by mail, and if a majority of the active members shall signify its approval or disapproval of a certain policy or course of action with respect to the question thus submitted, the will of the majority shall determine the question and shall be binding upon the House of Delegates and the Association upon certification of the result of the vote by the Secretary-Treasurer to the President and Board of Trustees.

Article XI. The Seal

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

Article XII. Amendments

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at the Regular Session, provided that such amendment shall have been presented in open meeting at the previous regular session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken.

Article XIII. Definitions

Whenever used in this Constitution, the Articles of Incorporation or the Bylaws—

(a) "County society," "component county society," or "component medical society" means "component society."

(b) "Annual Meeting" means the annual three-day meeting of the Association.

(c) "Scientific Sessions" mean those sessions during the Annual Meeting at which scientific subjects are programmed and discussed.

(d) "Regular Session" means the regular session of the House of Delegates which is held during the Annual Meeting.

(e) "Special Session" means a special, called meeting or session of the House of Delegates.

BYLAWS

Chapter I. Membership
Chapter II. Annual and Special Meetings of the Association
Chapter III. The House of Delegates
Chapter IV. Election of Officers
Chapter V. Duties of Officers
Chapter VI. Board of Trustees
Chapter VII. Discipline-The Judicial Council
Chapter VIII. Standing Committees and Councils
Chapter IX. Assessments and Expenditures
Chapter X. Rules of Conduct
Chapter XI. Rules of Order
Chapter XII. County Societies
Chapter XIII. Amendments

CHAPTER I. MEMBERSHIP

Section 1. Membership in this Association shall be coterminous with membership in a component county society. No physician shall be eligible for membership in this Association unless he is a member, in good standing of a component society, nor may he maintain membership in a component county society unless he is a member, in good standing of this Association.

When a physician who meets the qualifications hereinafter set forth, is certified to the Secretary-Treasurer as a member in good standing of a component society, properly classified as to type of membership, and when the dues pertaining to his membership classification have been received by the Secretary-Treasurer of the Association, the name of the member shall be included in the official roster of the Association and he shall be entitled to all the privileges of his class of membership. Provided, however, that members in good standing from other state societies may, if admitted to membership by a component society, be accepted by KMA for membership without paying dues for the remainder of the calendar year in which the transfer is made. Provided further, that the Board of Trustees shall have power, upon written application, approved annually by the county society of which the applicant is a member, to excuse any member from the payment of dues because of financial hardship. And provided further, that the Judicial Council, after a hearing, shall have power to condition membership in this Association upon the physician's agreement to limit the scope of his practice in any manner reasonably calculated to protect the public from the adverse effects of any demonstrated frailty or disability of said member.

Section 2. Membership in the Association shall be divided into nine classes, to-wit: Active, Life, In-Training, Associate, Inactive, Student, Service, Honorary and Special.

(a) Active Members. The active membership of the Association shall consist of the active members of the various component medical societies. To be eligible for active membership in any component society, the applicant must be a physician who holds an unrestricted or limited license to practice medicine and surgery in this state, and who is of good moral, ethical and professional standing. Nothing contained herein shall prevent a component society from requiring new members to occupy provisional status for a reasonable time after their admittance to membership under any classification.

(b) Life Members. Component societies may elect as a life-member any doctor of medicine or osteopathy who has served his profession with distinction and who has either reached the age of 70 or has retired from active practice. Life members shall have the right to vote and be entitled to the benefits of Chapter VI, Section 8 of these Bylaws, but shall not pay dues. They shall receive *The Journal* and other publications of the Association.

(c) Resident Physicians Section. Doctors of medicine or osteopathy who have complied with all pertinent regulations of the Kentucky Board of Medical Licensure and who are serving in AMA approved training programs in Kentucky shall be eligible for membership in the Resident Physicians Section of the Kentucky Medical Association. The Resident Physicians Section shall be governed by its own Constitution and Bylaws, which shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. In-Training members in good standing shall have the right to vote and receive all publications of the Association. In-Training members shall not be counted in determining the number of delegates to which their county society is entitled in the House of Delegates. The Resident Physicians Section will be represented in the KMA House of Delegates by one voting representative elected by the Governing Council of the Resident Physicians Section.

(d) Associate Members. The associate membership of the Association shall consist of the associate members of the various component medical societies. To be eligible for associate membership in any component society, the applicant must qualify under one or more of the following groups:

(1) Medical officers of the United States Army, Navy, Air Force, Veterans Administration, Public Health Service, or other federal governmental service while on duty in the State, but shall not be deemed to include physicians employed on a full-time basis by the Veterans Administration.

(2) Dentists may be invited to become Associate members.

(3) Physicians residing and/or practicing in communities bordering Kentucky who are active members of their home state and county society and who wish to become members of KMA on an other than active basis may become Associate Members.

Associate members shall not have the right to vote nor to hold office, but shall receive *The Journal* and other publications of the Association.

(e) Inactive Members. The inactive membership of the Association shall consist of the inactive members of the various component county societies. Any doctor of medicine licensed to practice medicine in Kentucky who is not engaged in the practice of medicine but who is otherwise eligible for active membership in the Association may be admitted to inactive membership by any component county society. Inactive members shall not have the right to vote nor hold office, but shall receive *The Journal* and other publications of the Association.

(f) Student Members. Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in an accredited medical school in the United States shall be eligible for membership in the Medical Student Section of the Kentucky Medical Association. This Medical Student Section shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with those of the parent Kentucky Medical Association. In order to insure the absence of any such conflict, the initial Constitution and Bylaws of the Student Section, as well as any later amendments thereto, shall be given prior approval by a majority of all Delegates present at the Annual Meeting of the KMA House of Delegates. Individual students may apply directly to the State Association for membership and be assigned to the county society of their choice. The determination

of such membership shall be coincident with the academic year of the institution in which the student is enrolled. Student members may not hold office in the State Association, but may be voting members of any State Association committee to which they are appointed. Student members may, however, hold office within the Student Section in accord with the provisions of that Section's Constitution and Bylaws. The Student Section will be represented in the House of Delegates through one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the Student Section membership attending the University of Louisville School of Medicine.

(g) Service Members, Members of the Association in good standing who enter military service and are ineligible for Association membership shall be classified as service members. Service Members shall not be required to pay dues. If a member in good standing enters service prior to April 1 and has paid his dues for that year, he shall receive all publications and other benefits applicable to his class of membership in the Association and shall owe no further dues until January 1 following his release. If a member in good standing enters service prior to April 1 without paying his dues for that year, he shall receive publications and other benefits but shall owe the dues applicable to his class of membership immediately following his release from active duty. Members whose dues have not been received by April 1 are not in good standing.

(h) Honorary Members. Any physician possessed of scientific attainments who is a member of a constituent state medical association and who has participated in the program of the scientific session and who is not a citizen of Kentucky may by unanimous vote of the House of Delegates be elected to honorary membership. Honorary members shall be entitled to the privileges of the floor in all scientific sessions.

(i) Special Members. Component societies may invite pharmacists, funeral directors, or other professional persons to become special members. Special members shall have no rights or obligations under these Bylaws, but may be accorded the privilege of attending and participating in the scientific meetings of the society, provided, however, that a registration fee may be required of special members who desire to attend the Annual Meeting of the Association.

Section 3. Hospital Medical Staff Section. There shall be a special section for hospital medical staff physicians who already hold membership in KMA. The Hospital Medical Staff Section (HMSS) shall be governed by its own Constitution and Bylaws, which Constitution and Bylaws shall not be in conflict with the Constitution, Bylaws and Board policies of the parent Kentucky Medical Association. Should any questions arise regarding the existence of a conflict, the KMA Board of Trustees shall be the final arbiter of such questions. The Hospital Medical Staff Section shall elect a Delegate and Alternate Delegate to the KMA House of Delegates. The Delegate to the KMA House of Delegates, or his Alternate as the case may be, shall be a voting member of the House and may present resolutions on behalf of the HMSS.

Section 4. Guests of Honor. Any distinguished physician not a resident of this State may become a guest of honor during any Annual Meeting upon invitation of the Board of Trustees and shall be accorded the privilege of participating in all of the scientific work of that meeting.

Section 5. No person who is finally convicted of a felony subsequent to September 26, 1968, shall be eligible for membership in this Association unless and until, upon proper application to the Judicial Council, it is determined that he is morally and ethically qualified. Except as provided in Chapter VII, Section 4 of these Bylaws, no person who is under sentence of suspension or expulsion from any component society of this Association shall be entitled to any of the rights or benefits of membership of this Association.

CHAPTER II. ANNUAL AND SPECIAL MEETINGS OF THE ASSOCIATION

Section 1. The Association shall hold its annual and special meetings at such times and places as may be determined by the House of Delegates.

Section 2. The Annual Meeting shall consist of one or more scientific sessions, at least two meetings of the House of Delegates, and such other gatherings as may be authorized by the Board of Trustees. Each scientific session shall be presided over by the President or in his absence or disability or at his request by the President-Elect or such officers as the Board of Trustees may direct. The entire time of the scientific sessions, as far as may be, shall be devoted to papers and discussions related to scientific medicine.

Section 3. The name of a physician upon the properly certified roster of members or list of delegates of a component society which has paid its annual assessment, shall be prima facie evidence of his right to register at any meeting of this Association.

Section 4. Each member in attendance at any meeting shall register indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of the society, he shall receive a badge which shall be evidence of his right to all privileges of membership at that meeting. No member or delegate shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

CHAPTER III. THE HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet in Regular Session at the time and place of the Annual Meeting, and shall, insofar as is practicable, fix its hours of meeting so as to give delegates an opportunity to attend the scientific sessions and other proceedings. Provided, however, that if the business interests of the Association and profession require, the Speaker, with the consent of the Board of Trustees, may convene the Regular Session in advance of the Annual Meeting, and the House may remain in session after the final adjournment thereof.

Section 2. The House may be called into Special Session by the President with the approval of the Board of Trustees, and a special session shall be called by the President on the written request of fifty duly elected delegates of the Association. The purpose of all special sessions shall be stated in the call, and all business transacted at any such special session shall be germane to the stated purpose.

Section 3. When a special session is called, the Secretary-Treasurer shall mail a notice of the time, place, and purpose of such meeting to the last known address of each delegate at least ten days before such session.

Section 4. The Speaker shall, by virtue of his office, be responsible for making all arrangements for all sessions, regular or special, of the House.

Section 5. The members of the House of Delegates shall be elected by the various component societies in the manner prescribed in Chapter XII of these Bylaws.

Section 6. In the event a component society is not represented at any meeting of the House, the Speaker shall consult with any officer of the component society who is in attendance and, with the approval of the Credentials Committee, may appoint any active member of such component society who is in attendance, as its alternate delegate. If no officer of such society is present, the Speaker may make the appointment without consultation, but with the approval of the Credentials Committee. All such appointments shall also be subject to the approval of the House.

Section 7. Forty per cent of the qualified delegates, as defined by Article VI of the constitution, shall constitute a quorum and all of the meetings of the House shall be open to the members of the Association. The House shall have the right to go into executive session whenever in its judgment such action is indicated; except that active members of the Association shall have the right to attend all executive sessions.

Section 8. Each resolution introduced into the House shall be in writing and signed by the author and presented to the Secretary-Treasurer following its introduction. If the author presenting the resolution presents it as an individual member of the Kentucky Medical Association, the resolution shall be signed by him. If the author be a group of members or component society, the resolution shall be signed by the authorized spokesman for that group. Immediately after the resolution has been introduced, it shall be referred to the proper Reference Committee before action thereon is taken.

Section 9. No resolution shall be introduced in the first meeting of the House of Delegates by any member or group of members other than the Board of Trustees unless a copy thereof was furnished to the Headquarters Office at least seven days prior to its introduction. The only exception to this shall be that a resolution which has been signed by ten or more members of the House of Delegates and of which there are sufficient printed copies to distribute to each member

of the House of Delegates may be received for consideration by an affirmative vote of three-fourths of the members present and voting. No new business shall be introduced in the last meeting of the House without unanimous consent, except when presented by the Board of Trustees. All new business so presented shall require the affirmative vote of three-fourths of those delegates present and voting, for adoption.

Section 10. The House shall give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each Annual Meeting a stepping stone to further ones of higher interest.

Section 11. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein the public is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse information in relation thereto.

Section 12. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality and shall continue these efforts until every physician in every county of the State who will agree to abide by the constitution, bylaws and other rules and regulations of the Association and the appropriate component society, has been brought under medical society influence.

Section 13. It shall encourage postgraduate work in medical centers as well as home study and research and shall endeavor to have the results of the same utilized and intelligently discussed in the county societies.

Section 14. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body.

Section 15. It shall, upon application, provide and issue charters to county societies organized in conformity with the Constitution and Bylaws of this Association.

Section 16. The state shall be divided into the following districts:
No. 1—Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, McCracken, and Marshall.
No. 2—Daviess, Hancock, Henderson, McLean, Ohio, Union, and Webster.
No. 3—Caldwell, Christian, Crittenden, Hopkins, Lyon, Muhlenberg, Todd, and Trigg.
No. 4—Breckinridge, Bullitt, Grayson, Green, Hardin, Hart, Larue, Marion, Meade, Nelson, Taylor, and Washington.
No. 5—Jefferson.
No. 6—Adair, Allen, Barren, Butler, Cumberland, Edmonson, Logan, Metcalf, Monroe, Simpson, and Warren.
No. 7—Anderson, Carroll, Franklin, Gallatin, Grant, Henry, Oldham, Owen, Shelby, Spencer, and Trimble.
No. 8—Boone, Campbell, and Kenton.
No. 9—Bath, Bourbon, Bracken, Fleming, Harrison, Mason, Nicholas, Pendleton, Scott, and Robertson.
No. 10—Fayette, Jessamine, and Woodford.
No. 11—Clark, Estill, Jackson, Lee, Madison, Menifee, Montgomery, Owsley, Powell, and Wolfe.
No. 12—Boyle, Casey, Clinton, Garrard, Lincoln, McCreary, Mercer, Pulaski, Rockcastle, Russell, and Wayne.
No. 13—Boyd, Carter, Elliott, Greenup, Lawrence, Lewis, Morgan, and Rowan.
No. 14—Breathitt, Floyd, Johnson, Knott, Letcher, Magoffin, Martin, Perry, and Pike.
No. 15—Bell, Clay, Harlan, Knox, Laurel, Leslie, and Whitley.
District meetings may be held as desired, and District Medical Associations may be organized as desired, according to the districts outlined above.

Section 17. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

Section 18. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, except as provided in Chapter VI, Section 4, and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.

Section 19. A digest of proceedings of the House of Delegates shall be published and distributed to the membership annually.

CHAPTER IV. ELECTION OF OFFICERS AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Section 1. The President-Elect and the Vice President shall be elected from the state at large for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast. Delegates to the AMA and their alternates shall be elected from the state at large for terms of two years with the provision that no more then one delegate and no more than one alternate delegate shall be elected from one component society. The Speaker of the House of Delegates, the Vice-Speaker and the Secretary-Treasurer shall be elected for terms of three years. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice-President, Secretary-Treasurer, Speaker or Vice-Speaker of the House of Delegates, Trustee or Alternate Trustee who has not been an active member of the Association for at least three years.

Section 2. During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman. The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees, and shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the committee shall have a hearing. The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post for information all eligible and willing candidates proposed for offices elected from the state at large. Before noon of the day following the opening meeting, the committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nomination, or nominations, for each office to be filled, and shall formally present said nomination, or nominations, to the House at the time of the election. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation, or disability, shall be filled by appointment of the Speaker.

Section 3. The election of officers and delegates to the AMA and their alternates shall be held at the second meeting of the regular session of the House of Delegates.

Section 4. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, provided, however, that when there are more than two nominees, the nominee receiving the least number of votes on the first ballot shall be dropped and the balloting shall continue in like manner until an election occurs.

Section 5. Any member may make known his availability for any office within the gift of the Association. However, it would be regarded as unseemly for any member to actively campaign for his own election.

Section 6. The Delegates representing the counties in each District form the Nominating Committee for the purpose of nominating a Trustee and an Alternate Trustee for the District concerned. This committee shall hold a well publicized meeting open to all active members of the District concerned who are in attendance at the Annual Meeting for the purpose of discussing the nomination of the

Trustee and his Alternate to serve the District. Additional nominations may be made from the floor when the Nominating Committee makes its report to the House of Delegates.

CHAPTER V. DUTIES OF OFFICERS OTHER THAN TRUSTEES AND ALTERNATES

Section 1. Except as provided in Chapter II, Section 2 hereof, the President shall preside at all scientific sessions of the Association and shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such duties as custom and parliamentary usage may require. He shall be the real head of the profession in the State during his term of office and so far as practicable, shall visit or cause to be visited on his behalf, the various sections of the State and assist the Trustees in building up the county societies and in making their work more practical and useful. He shall be reimbursed for his reasonable and necessary travel expense incurred in the performance of his duties as President.

Section 2. The President-Elect shall assist the President in visitation of county and other meetings. He shall become president of the Association at the next Annual Meeting following his election as president-elect. In the event of his death or resignation, or if he becomes permanently disqualified or disabled, his successor shall be elected by the House of delegates and shall be installed as President of the Association at its next regular session.

Section 3. The Vice President shall assist the President in the discharge of his duties, and shall perform such other duties as may be prescribed by the Board of Trustees. In the event of a vacancy in the office of the President, the Vice-President shall succeed to the office of the President.

Section 4. The President-Elect and the Vice-President, when acting for and in behalf of the President, may be reimbursed for their reasonable and necessary travel expenses incurred in the performance of their duties in such amounts as may be available out of the sum appropriated in the annual budget for traveling expenses.

Section 5. The Speaker of the House shall preside at all meetings of the House of Delegates. He shall appoint all committees of the House of Delegates with the approval of the House of Delegates. He shall be a non-voting member of said committees, and shall perform such other duties as custom and parliamentary usage may require.

Section 6. The Vice Speaker shall assume the duties of the Speaker in his absence and shall assist the Speaker in the performance of his duties. In the event of the death, disability, resignation, or removal of the Speaker, the Vice Speaker shall automatically become Speaker of the House of Delegates.

Section 7. The Secretary-Treasurer shall advise the Executive Vice President in all administrative matters of this Association and shall act as the corporate secretary insofar as the execution of official documents or institution of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, and as may be prescribed by the Board of Trustees. The Secretary-Treasurer shall demand and receive all funds due the Association, including bequests and donations. He shall, if so directed by the House of Delegates, sell or lease any real estate belonging to the Association and execute the necessary papers and shall, subject to such direction, have the care and management of the fiscal affairs of the Association. All vouchers of the Association shall be signed by the Executive Vice President or his designee and shall be countersigned by the Secretary-Treasurer of the Association. When one or more of the above-named officials are not readily available, four specifically designated representatives of the Executive Committee are authorized to countersign the vouchers, provided that in any event all vouchers of the Association shall bear a signature and a countersignature. The four members of the Executive Committee authorized to countersign vouchers shall be designated by the Board during their reorganizational meeting in September and, whenever possible should be easily accessible from the KMA Headquarters Office. All those authorized to countersign vouchers shall be required to give bond in an amount to be determined by the Board of Trustees. The Secretary-Treasurer shall report the operations of his office annually to the House of Delegates, via the Board of Trustees, and shall truly and accurately account for all funds belonging to the Association and coming into his hands during the year. His accounts shall be audited annually by a certified public accountant appointed by the Board of Trustees.

CHAPTER VI. BOARD OF TRUSTEES

Section 1. The Board of Trustees shall be the executive body of the House of Delegates and between sessions of the House of Delegates shall exercise the powers conferred upon the House of Delegates by the Constitution and Bylaws. The Board of Trustees shall consist of the duly elected Trustees and the President, the President-Elect, the Vice-President, the immediate Past-President, the Speaker, and Vice-Speaker of the House of Delegates, the Secretary-Treasurer, and the Delegates and Alternate Delegates to the American Medical Association. The Executive Committee of the Board of Trustees shall consist of the President, the Vice-President, the President-Elect, the Secretary-Treasurer, the Chairman of the Board of Trustees, the Vice Chairman of the Board of Trustees, and two Trustees to be elected annually by the Board of Trustees. A majority of the full Board, and a majority of the full Executive Committee, to-wit, 5, shall constitute a quorum for the transaction of all business by either body. Between sessions of the Board, the Executive Committee shall exercise all of the powers belonging to the Board except those powers specifically reserved by the Board to itself.

Section 2. The Board shall meet daily, or as required, during the Annual Meeting of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Trustees. It shall meet on the last day of the Annual Meeting for reorganization and for the outlining of the work for the ensuing year. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided, which report shall include an audit of the accounts of the Secretary-Treasurer and other agents of this Association and which shall also specify the character and cost of all the publications of the Association during the year, and the amounts of all other property belonging to the Association, or under its control, with such suggestions as it may deem necessary. By accepting or rejecting this report, the House may approve or disapprove the action of the Board of Trustees in whole or in part, with respect to any matter reported upon therein. In the event of a vacancy in any office other than that of President, the Board may fill the same until the annual election.

Section 3. Each Trustee shall be organizer, peacemaker and censor for his district. He shall hold at least one district meeting each year for the exchange of views on problems relating to organized medicine and for postgraduate scientific study. The necessary traveling expenses incurred by a Trustee in the line of his duties herein imposed may be paid by the Secretary-Treasurer upon a proper itemized statement but this shall not be constituted to include his expenses in attending the Annual Meeting of the Association.

Section 4. The Board shall have the authority to communicate the views of the profession and of the Association in regard to health, sanitation, and other important matters, to the public and press.

Section 5. The *Journal of the Kentucky Medical Association* shall be the official organ of the Association and shall be published under the supervision of the Board. The Editor of the *Journal* shall be elected by the Board. All money received by the *Journal* or by any member of its staff on its behalf, shall be paid to the Secretary-Treasurer on the first of each month. The Board shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Association, and shall have authority to appoint such assistants to the Editor as it deems necessary.

Section 6. All commercial exhibits during the Annual Meeting shall be within the control and direction of the Board.

Section 7. In the event of the death, resignation, removal or disability of a Trustee, between sessions of the House of Delegates, the Alternate Trustee shall succeed to the office of Trustee. In the case of disability, the Alternate shall serve until the disability is removed or the Trustee's term expires, and in the absence of the Trustee, the Alternate Trustee shall vote in his place and stead.

Section 8. The Association, upon the request of any member in good standing who is a defendant in a professional liability suit, will provide such member with the consultative service of competent legal counsel selected by the Secretary-Treasurer acting under the general direction of the Executive Committee. In addition, the Association may, upon application to the Board outlining unusual circumstances justifying such action, provide such member with the services of an attorney selected by the Board to defend such suit through one court.

Section 9. The Board shall employ an Executive Vice President whose principal duty shall be to carry out and execute the policies established by the House of Delegates and the Board. His compensation shall be fixed by the Board. The Executive Vice President shall act as general administrative officer and business manager of the Association and shall perform all administrative duties necessary and proper to the general management of the Headquarters Office, except those duties which are specifically imposed by the Constitution and Bylaws upon the officers, committees, councils and other rep-

resentatives of the Association. He shall refer to the various elected officials all administrative questions which are properly within their jurisdiction.

He shall attend the Annual Meeting, the meetings of the House of Delegates, the meetings of the Board, as many of the committee and council meetings as possible, and shall keep separately the records of their respective proceedings. He shall, at all times, hold himself in readiness to advise and aid, so far as is possible and practicable, all officers, committees, and councils of the Association in the performance of their duties and in the furtherance of the purposes of the Association. He shall be allowed traveling expenses to the extent approved by the Board.

He shall be the custodian of the general papers and records of the Association (including those of the Secretary-Treasurer) and shall conduct the official correspondence of the Association. He shall notify all members of meetings, officers of their election, and committees and councils of their appointment and duties.

He shall account for and promptly turn over to the Secretary-Treasurer all funds of the Association which come into his hands. It shall be his duty to receive all bills against the Association, to investigate their fairness and correctness, to prepare vouchers covering the same, and to forward them to the Secretary-Treasurer for appropriate action. He shall keep an account with the component societies of the amounts of their assessments, collect the same, and promptly turn over the proceeds to the Secretary-Treasurer. He shall, within thirty days preceding each Annual Meeting, submit his financial books and records to a certified public accountant, approved by the Board, whose report shall be submitted to the House of Delegates.

He shall keep a record of all physicians in the State by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association.

He shall act as Managing Editor, or otherwise supervise the publication of *The Journal of the Kentucky Medical Association* and such other publications as may be authorized by the House of Delegates, under the guidance and direction of the Board.

He shall perform such additional duties as may be required by the House of Delegates, the Board, or the President, and shall employ such assistants as the Board may direct. He shall serve at the pleasure of the Board, and in the event of his death, resignation, or removal, the Board shall have the power to fill the vacancy. From time to time, or as directed by the Board, he shall make written reports to the Board and House of Delegates concerning his activities and those of the Headquarters Office.

CHAPTER VII. DISCIPLINE—THE JUDICIAL COUNCIL

Section 1. There is hereby created a Judicial Council composed of the Secretary-Treasurer of the Association and four members to be elected by the House of Delegates for terms of four years each. One member shall be elected from each of the traditional eastern, western, and central districts, and one member from the state at large. Members of the first Judicial Council shall be elected for terms of one, two, three, and four years, respectively so that thereafter, one member will be elected each year. The Council shall annually elect a chairman.

To be eligible for membership on the Judicial Council, a nominee shall possess at least one of the following qualifications: (1) Have served one term as an officer, trustee, or a Delegate to the AMA or (2) Have served five years as a member of the House of Delegates.

It shall be the duty of the Board of Trustees to nominate at least one candidate for each vacancy on the Judicial Council, but additional nominations may be made from the floor. Vacancies which occur between Regular Sessions of the House of Delegates, shall be filled by the Board of Trustees. No member, other than the Secretary-Treasurer shall serve more than two consecutive terms.

Section 2. The Judicial Council shall be the Board of Censors of the Association. It shall be the final arbiter of all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All charges of breach of medical ethics brought before the House of Delegates shall be referred to the Judical Council without discussion. A member who has been convicted of a felony or of any violation of the Medical Practice Act, or who violates any of the provisions of the constitution, bylaws, or any rule or regulation of this Association, or the Principles of Ethics of the American Medical Association shall be liable to censure, fine, suspension, or expulsion upon order of the Judical Council. Provided, however, that if in addition to discipline by the Association, the Judicial Council shall be of the opinion that the offending member's license to practice medicine should be revoked, it shall report this to the Board of Trustees as a recommendation that the Board refer the matter to the State Board of Medical Licensure for this purpose.

Suspension shall be for a specified period during which the member shall remain liable for the payment of dues but shall not be eligible to hold office, attend business meetings or otherwise participate in Associational activities at the county, district or state levels. Upon the expiration of the period of suspension, every suspended member shall be automatically restored to all of the rights and privileges of his class of membership unless the Judicial Council determines that his conduct during the period of suspension indicates that he is unworthy of such restoration, in which event his suspension may be extended or he may be expelled.

Upon the complaint of any member or aggrieved individual involved, the Judicial Council may initiate disciplinary proceedings against any member, and may intervene in or supersede county, individual trustee, or district disciplinary proceedings, whenever in its sole judgment and opinion, a disciplinary matter is not being handled in an expeditious manner, and may render a decision therein. In all cases in which the Association, rather than a member or aggrieved individual, appears to be the real party in interest, the Judicial Council may refer the complaint to the Board of Trustees for a determination as to whether probable cause for disciplinary action exists. If the Board of Trustees resolves this question in the affirmative, it shall so charge the respondent, and a representative of the Board shall thereupon be responsible for presenting the evidence in support of such charge at any hearing held thereon.

In all proceedings of the Judicial Council, the due process requirements of reasonable notice and a full and fair hearing shall be observed. No recommended disciplinary decision of an individual trustee or any district grievance committee shall become effective unless and until approved by the Judicial Council.

Section 3. It shall consider all appeals from the recommended decisions of individual trustees and District Grievance Committees. In this case of appeals from the decisions of individual trustees, the Judicial Council may admit such oral or written evidence as in its judgment will best and most fairly present the facts, but all appeals from the recommended decisions of District Grievance Committees shall be considered on the record made before such committee. It shall be the duty of the Secretary to notify the parties with respect to its disposition of each case.

Section 4. The Judicial Council may hear appeals from the disciplinary orders of component societies. Provided, however, that such appeals shall be considered on the record made before the component societies.

Section 5. Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. A party aggrieved by the decision of the Judicial Council may seek an appeal to the Judicial Council of the American Medical Association in accordance with the jurisdiction, rules and regulations of that Association.

Section 6. Component societies are encouraged to create suitable disciplinary procedures which guarantee due process, and to dispose of all disciplinary problems which come to their attention. It is recognized, however, that it may not be feasible for some societies to do so, and the District Grievance Committees hereinafter created, are designed to meet the needs of county societies which are without a functioning grievance committee.

Section 7. The trustee of each district is hereby designated the chairman of his District Grievance Committee. The Judicial Council shall designate two additional trustees from districts adjoining that of the chairman, and the three trustees thus selected shall constitute the District Grievance Committee. All grievances which cannot be resolved by individual trustees, shall be referred to the local grievance committee or the district grievance committee for the district in which the respondent physician or county society resides.

Section 8. District Grievance Committees shall investigate every grievance coming to their attention, taking care that the physician complained of shall have ample opportunity to respond to the complaint. If, after careful investigation the complaint appears to be without merit, the committee shall so report to the Judicial Council, including sufficient facts in its report to enable Judicial Council to form its own conclusions.

If the District Grievance Committee's investigation indicates that the member may be a proper subject of disciplinary action, the committee shall, upon reasonable notice, hold a hearing at which the complainant and the respondent shall be entitled to be represented by counsel, to present the testimony of witnesses in his behalf, and to cross-examine witnesses against him. All testimony shall be under oath and shall be recorded by a competent reporter at the expense

of the Association, but shall not be transcribed unless and until an appeal is taken as hereinafter provided.

When all of the testimony has been heard and all evidence received, the committee shall make written findings and recommendations which it shall transmit to the Judicial Council, furnishing copies thereof to the parties.

Section 9. Any party aggrieved by the findings or recommendations of the committee, may, within 30 days, appeal to the Judicial Council. Appeals shall be taken by filing with the Secretary-Treasurer a copy of the entire record made before the District Grievance Committee (including a transcript of the testimony, procured at the appellant's expense) together with a written statement of appeal pointing out in detail wherein the committee has erred, and directing the attention of the Judicial Council to those portions of the transcript upon which he relies, provided, however, that the Judicial Council may extend the time in which the transcript must be filed, upon request made within the initial thirty-day period.

Section 10. No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judical Council submitted to the House of Delegates may be accepted or rejected or referred back to the Judicial Council but not modified by the House of Delegates.

CHAPTER VIII. COMMITTEES AND COMMISSIONS

Section 1. The Board of Trustees shall have authority from time to time to appoint, fix the duties of, and abolish such standing committees and commissions as it deems necessary or desirable to assist it in carrying on the Association's activities in the fields of business and scientific meetings, medical education and hospitals, legislation, medical services, communications and public service, and governmental medical services.

Section 2. The Executive Committee shall serve as the nominating committee for all standing committee and commission appointments, but the trustees may make additional nominations. When the Executive Committee sits as such nominating committee, the President-Elect shall serve as Chairman.

Section 3. The President, with the advice and consent of the Chairman of the Board of Trustees, may appoint temporary ad hoc committees to perform specified functions. All such committees shall expire at the end of the term of the President by whom appointed.

Section 4. No committee or commission shall have power or authority to fix or determine Associational policy or to commit the Association to any course of action, such powers being expressly reserved to the House of Delegates and the Board of Trustees.

CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The annual dues for membership in this Association shall be as follows: (1) Active Members, $300, (except those physicians elected to KMA membership within six months of the completion of their residency, fellowship or fulfillment of government-obligated service shall pay $150 their first full year of membership); (2) Life Members, no dues; (3) Associate Members, $50; (4) In-Training Members, $20, except that in-training members shall not be liable for dues during the first six months of their first postgraduate year in an approved residency program in Kentucky; (5) Inactive Members, $25; (6) Student Members, no dues; (7) Service Members, no dues; (8) Special Members, no dues. The dues during the first year for any active member shall be prorated on a quarterly basis as determined by the date of his application. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments, together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county, to the Secretary-Treasurer of this Association as of the first day of January each year.

Section 2. Unless otherwise provided by the Board of Trustees pursuant to Section 1 hereof, any component society which fails to pay its assessments, or make the report as required, on or before the first day of April in each year, shall be held as suspended and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 3. All motions and resolutions appropriating money shall specify a definite amount or so much thereof as may be necessary for the purpose, and must have prior approval of the Board of Trustees before they can become effective. No motion or resolution, the adoption of which would require a substantial expenditure of funds, shall be considered by the House of Delegates unless the funds have been budgeted or are provided by the motion or resolution.

CHAPTER X. RULES OF CONDUCT

The principles set forth in the Principles of Ethics of the American Medical Association, together with the Constitution and Bylaws of the Association and all duly adopted resolutions of the House of Delegates, shall govern the conduct of members in their relation to each other and to the public.

CHAPTER XI. RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in the latest edition of Sturgis' Standard Code of Parliamentary Procedure, unless otherwise determined by a vote of its respective bodies.

CHAPTER XII. COUNTY SOCIETIES

Section 1. Except as provided in Section 3 of this Chapter, all county medical societies in this State which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

The House of Delegates shall have authority to evoke the charter of any component society whose actions are in conflict with the letter or spirit of the Constitution and Bylaws.

Section 2. As rapidly as can be done after the adoption of this Constitution and Bylaws, a medical society shall be organized in every county in the state in which no component society exists, and charters shall be issued thereto.

Section 3. Only one component society shall be chartered in any county. Membership in the component society thus created shall entitle the members thereof to all the rights and benefits of membership in the Kentucky Medical Association.

Section 4. In sparsely settled sections two or more component societies may join for scientific programs, the election of officers, and such other matters as they may deem advisable. The component societies thus combined shall not lose any of their privileges or representation. The active members of each component society shall annually elect at least a Secretary and a Delegate for the transaction of its business with the Association.

Two or more adjacent component societies may also combine into one multi-county component society by adopting resolutions to that effect at special meetings called for that purpose on at least ten days' notice. Copies of the resolution, certified as to their adoption by the Secretary of each society, shall be forwarded to the Headquarters Office. If approved by the Board of Trustees, the multi-county society shall thereupon be issued a charter, the consolidating county societies shall cease to exist and the multi-county society shall become a component society of this Association; provided, however, that the active members residing in each county comprising the multi-county society shall be entitled to elect a delegate or delegates to the House of Delegates, as if each such county constituted a component society within the meaning of Section 11 of this Chapter; and provided, further, that multi-county societies may elect, at large, one alternate delegate for each delegate to which it is entitled under this section and such alternate may serve in the absence of the delegate for whom he is the designated alternate.

A multi-county component society may be disaggregated so that an individual county society may regain independent status when a majority of the members in that county indicate their desire to reorganize. At that time the members from the withdrawing county shall forward a petition containing the signatures of a majority of the members in that county to be validated by KMA. The withdrawing county shall further forward a resolution to the KMA Headquarters Office to be submitted to the House of Delegates at its next regular meeting, requesting recognition as a county society and issuance of a charter, in accord with Chapter XII, Section 1 of the KMA Bylaws. Once this charter is issued, the new county society shall become a recognized entity at the beginning of the following KMA dues year and those counties remaining with the original multi-county unit may continue to function under their pre-existing charter.

Section 5. Each component society shall be the sole judge of the qualifications of its own members. All members of component societies shall be members of the Kentucky Medical Association and shall be classified in accordance with Chapter I, Section 2 of these

Bylaws, provided, however, that no physician who is under suspension or who has been expelled shall thereafter, without reinstatement by the Board of Trustees be eligible for membership in any component society. Any physician who desires to become a member of the Kentucky Medical Association shall first apply to the component society in the county in which he resides, for membership therein. Except as hereinafter provided in Sections 6 and/or 8 of this chapter, no physician shall be an active member of a component society in any county other than the county in which he resides.

Section 6. Any physician who may feel aggrieved by the action of the component society of the county in which he resides, in refusing him membership, shall have the right to appeal to the Board of Trustees, which, upon a majority vote, may permit him to apply for membership in a component society in a county which is adjacent to the county in which he resides.

Section 7. When a member in good standing in a component society moves to another county in the State, his name, upon request, shall be transferred without cost to the roster of the component society into whose jurisdiction he moves, if he is admitted to membership therein.

Section 8. A physician whose residence is closer to the headquarters of an adjacent component society than it is to the headquarters of the component society of the county in which he resides, may, with the consent of the component society within whose jurisdiction he resides, hold membership in said adjacent component society.

Section 9. Each component society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Upon reasonable notice and after a hearing, component societies may discipline their members by censure, fine, suspension or expulsion, for any breach of the Principles of Medical Ethics or any bylaw, rule or regulation lawfully adopted by such societies or this Association. At every hearing, the accused shall be entitled to be represented by counsel and to cross-examine witnesses, and the society shall cause a stenographic record to be made of the entire proceedings. The stenographer's notes need not be transcribed unless and until requested by the respondent member.

Any physician aggrieved by the disciplinary action of a component society may, within ninety (90) days, appeal to the Judicial Council, whose decision shall be final. This appeal shall be in writing and shall point out in detail the errors committed by the county society. It shall be accompanied by a transcript of the proceedings before the county society, procured at appellant's expense, and the statement of appeal shall direct the attention of the Judicial Council to those portions of the transcipt upon which he relies.

Any member who fails or refuses to comply with the lawful disciplinary orders of his component society shall, if such failure or refusal continues for more than thirty (30) days, be automatically suspended from membership, provided, however, that an appeal shall stay the suspension until a final decision is made by the Judical Council.

The resignation of a member against whom disciplinary charges are pending or who is in default of the disciplinary judgment of his county society, a district grievance committee or the Board of Trustees shall not be accepted and no member who is suspended or expelled may be reinstated or readmitted unless and until he complies with all lawful orders of his component society and the Board of Trustees.

Section 10. Frequent meetings shall be encouraged and the most attractive programs arranged that are possible. Members shall be especially encouraged to do postgraduate and original research work, and to give the society the first benefit of such labors. Official positions and other references shall be unstintingly given to such members.

Section 11. At the time of the annual election of officers, each component society shall elect a delegate or delegates to represent it in the House of Delegates. The term of a delegate shall commence on the first day of the regular session of the House following his election, and shall end on the day before the first day of the next regular session, provided, however, that component societies may elect delegates for more than one term at any election. Each component society may elect one delegate for each 25 voting members in good standing, plus one delegate for one or more voting members in excess of multiples of 25, provided, however that each component society shall be entitled to at least one delegate regardless of the number of voting members it may have and that each multi-county society shall be entitled to the same number of delegates as its component societies would have had. The secretary of the society shall send a list of such delegates to the Secretary-Treasurer of this Association not later than 45 days before the next Annual Meeting. It shall be the obligation of a component society which elects delegates to serve more than one year, to provide the KMA Headquarters Office with a certified list of its delegates each year.

Section 12. The secretary of each component society shall keep a roster of its members and a list of nonaffiliated licensed physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall furnish an official report containing such information upon blanks supplied him for the purpose, to the Secretary-Treasurer of the Association, on the first day of January of each year or as soon thereafter as possible, and at the same time the dues accruing from the annual assessment are sent in. In keeping such roster the secretary shall note any change in the personnel of the profession by death or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

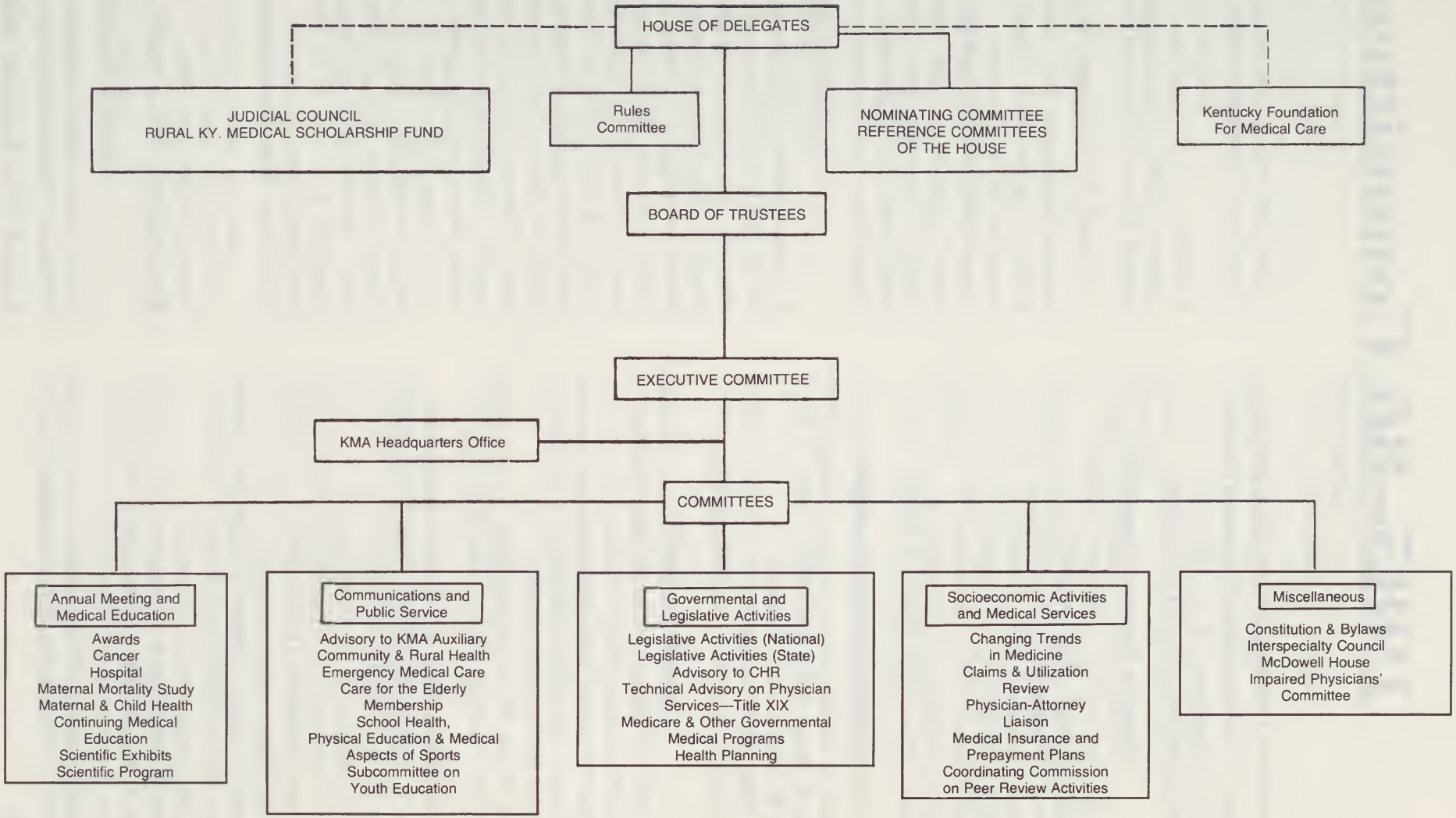
CHAPTER XIII. AMENDMENTS

Section 1. These bylaws may be amended at any session of the House of Delegates by a majority vote of the Delegates present at a meeting of that session, provided: (1) the amendment proposed is presented in writing to the Delegates thirty days prior to the meeting, or (2) the amendment is introduced in writing at a regular meeting of the House of Delegates during the session and considered at the following meeting of the session, the vote on said amendment having been postponed definitely for a period of at least one day.

Section 2. An amendment to or change in the bylaws may be proposed by a reference committee or by the Board of Trustees at the final meeting of a session of the House of Delegates, but, not having been postponed definitely for a period of one day, requires a two-thirds vote.

Section 3. An amendment to these bylaws may be proposed in writing by an individual Delegate at the final meeting of a session of the House of Delegates. If such an amendment is proposed, the proposal will be postponed definitely and studied by the appropriate reference committee at that time, reporting their recommendation back to the House of Delegates before the final meeting is adjourned. Such an amendment, having not been postponed definitely for a period of one day, requires a two-thirds vote.

KMA Organization Chart—Revised November 1985



1985–86 Committees

Advisory Committee to the KMA Auxiliary

Charles C. Smith, Jr., M.D., Louisville, Chairman
Wally O. Montgomery, M.D., Paducah
James B. Holloway, Jr., M.D., Lexington

Scientific Program Committee

Max A. Crocker, M.D., Lexington, Chairman
Joseph C. Allegra, M.D., Louisville
Kenneth Chasteen, M.D., Shelbyville
Kenneth Holtzapple, M.D., Louisville
Richard F. Hench, M.D., Lexington
Arthur H. Keeney, M.D., Louisville
Wally O. Montgomery, M.D., Paducah
Thomas C. Stine, M.D., Highland Heights

Scientific Exhibits Committee

Richard A. Kielar, M.D., Lexington, Chairman
James P. Moss, M.D., Louisville
John W. Ratliff, M.D., Lebanon
Sibu Saha, M.D., Lexington
Joseph Kline, Jr., Ph.D., Louisville (student)

Awards Committee

S. Randolph Scheen, M.D., Louisville, Chairman
Ballard W. Cassady, M.D., Pikeville
Delmas M. Clardy, M.D., Hopkinsville
Carl Cooper, Jr., M.D., Bedford
David A. Hull, M.D., Lexington
Paul J. Parks, M.D., Bowling Green
Charles C. Smith, Jr., M.D., Louisville

Continuing Medical Education Committee

James E. Redmon, Jr., M.D., Louisville, Chairman
James W. Baker, M.D., Lexington
Garry N. Binegar, M.D., Owensboro
John V. Borders, M.D., Lexington
Charles M. Brohm, M.D., Louisville
John W. Cullen, M.D., Lexington
Michael E. Daugherty, M.D., Lexington
Brooks Horsley, M.D., Madisonville
John M. Johnstone, M.D., Richmond
Sally S. Mattingly, M.D., Lexington
James A. Parrott, M.D., Hopkinsville
Robert W. Powell, M.D., Louisville
Bruce M. Stapleton, M.D., Ashland
Alfred L. Thompson, Jr., M.D., Louisville
N. Don Feibelman, III, M.D., Lexington (resident)
Bruce Spears, Louisville (student)

Ex-Officio:
Constance Fulmer, Ph.D., Lexington
Bernard Tamme, Louisville, KHA Representative

Council for Continuing Medical Education

James A. Baumgarten, M.D., Owensboro, Chairman
Keith H. Crawford, M.D., Paducah
Stuart Fink, M.D., Louisville
Hiram C. Polk, M.D., Louisville
Joseph E. Roe, M.D., Madisonville
Charles R. Sachatello, M.D., Lexington
Paul J. Sides, M.D., Lancaster
Nnamdi Davis, Louisville (student)

Cancer Committee

P. Raphael Caffrey, M.D., Lexington, Chairman
Ben M. Birkhead, M.D., Louisville
Harry W. Carloss, M.D., Paducah
John D. Cronin, M.D., Lexington
Manuel Grimaldi, M.D., Louisville
Dennis L. Havens, M.D., Lexington
Louis S. Heuser, M.D., Louisville
Walter J. Kuebler, II, M.D., Bowling Green
Yosh Maruyama, M.D., Lexington
William R. Meeker, M.D., Lexington
Carol S. Milburn, M.D., Ft. Thomas
Joseph L. Milburn, M.D., Madisonville
Condict Moore, M.D., Louisville
John S. Spratt, M.D., Louisville
Karl H. Strand, M.D., Somerset
George R. Tanner, M.D., Ft. Thomas
Max E. Wheeler, M.D., Ashland
Thomas M. Woodcock, M.D., Louisville
Matt Fargen, Louisville (student)
Kristie Jones, M.D., Louisville (resident)

Ex-Officio:
Wayne B. Miller, Louisville
Mary Ann Rand, R.N., Louisville

Hospital Committee

John D. Perrine, M.D., Lexington, Chairman
Bill Bacon, M.D., Flemingsburg

William B. Cook, M.D., Prestonsburg
Beverly M. Gaines, M.D., Louisville
Peter Hasselbacher, M.D., Louisville
Laszlo Makk, M.D., Louisville
William B. Monnig, M.D., Erlanger
Benjamin M. Rigor, M.D., Louisville
Oliver R. Roth, M.D., Ashland
David Easley, M.D., Louisville, (resident)
Judy Cook, Louisville (student)

Ex-Officio:
KHA Representative

Emergency Medical Care Committee

E. Truman Mays, M.D., Somerset, Chairman
W. Stephen Aaron, M.D., Louisville
James L. Combs, M.D., Covington
G. Paul Eleazer, M.D., Berea
Diller B. Groff, M.D., Louisville
Robert Hughes, M.D., Louisville
Dennis B. Kelly, M.D., Lexington
Willard L. Keith, M.D., Greenville
Mark A. Malangoni, M.D., Louisville
Henry N. Meiers, M.D., Bowling Green
William H. Mitchell, M.D., Richmond
Mellayne R. Myers, M.D., Lexington
James F. Rice, M.D., Louisville
R. John Sanders, M.D., Owensboro
Charles B. Spalding, M.D., Bardstown
Irvin E. Smith, M.D., Paducah
John D. Stewart, M.D., Lexington
Donald M. Thomas, M.D., Louisville
Phillip A. Tibbs, M.D., Lexington
Thomas F. Whayne, Jr., M.D., Lexington
Carla Turner, M.D., Louisville (resident)
Bruce Spears, Louisville (student)
Barbara Cox, Louisville (Auxiliary)

Interspecialty Council

Paul J. Parks, M.D., Bowling Green, Chairman
Representatives of 23 specialty societies:

Kentucky Society of Allergy and Clinical Immunology
Erwin Jones, M.D., Lexington

Kentucky Society of Anesthesiologists
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2. Drinking to handle problems or relieve symptoms.

3. Obvious preoccupation with alcohol and the frequent need to have a drink.

4. Surreptitious drinking or gulping of drinks.

5. Tendency toward making alibis and weak excuses for drinking.

6. Refusal to concede what is obviously excessive consumption and expressing annoyance when the subject is mentioned.

7. Frequent absenteeism from the job, especially following weekends and holidays.

8. Repeated changes in jobs, particularly if to successively lower levels, or employment in a capacity beneath ability, education and background.

9. Shabby appearance. poor hygiene, and behavior and social adjustment inconsistent with previous levels or expectations.

10. Persistent vague physical complaints without apparent cause, particularly insomnia, stomach upsets, headaches, loss of appetite.

11. Multiple contacts with the health care system with disorders that are alcohol caused or related.

12. Persistent marital and family problems, perhaps with multiple marriages.

13. History of arrests for drunkenness or drunken driving.

Submitted by the KMA Impaired Physicians' Committee

8743 20

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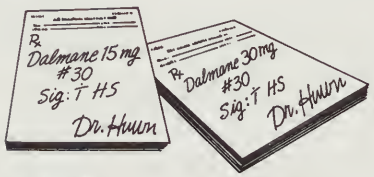
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References: **1.** Kales J, *et al: Clin Pharmacol Ther 12*:691-697, Jul-Aug 1971. **2.** Kales A, *et al: Clin Pharmacol Ther 18*:356-363, Sep 1975. **3.** Kales A, *et al: Clin Pharmacol Ther 19*:576-583, May 1976. **4.** Kales A, *et al: Clin Pharmacol Ther 32*:781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc 27*:541-546, Dec 1979. **6.** Dement WC, *et al: Behav Med*, pp. 25-31, Oct 1978. **7.** Kales A, Kales JD: *J Clin Psychopharmacol 3*:140-150, Apr 1983. **8.** Tennant FS, *et al:* Symposium on the Treatment of Sleep Disorders, Teleconference, Oct 16, 1984. **9.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21*:355-361, Mar 1977.



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